

## EDITORIAL

# LANKESTERIANA, A NO IMPACT JOURNAL ... OR IS IT?

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The word impact comes from the Latin *impactus*, to push against. It is defined by the Merriam-Webster dictionary as, among others, “to have a direct effect on”. In the realm of scientific publishing, impact is measured in the sense of the journal Impact Factor (IF). The IF is calculated by “considering all citations in 1 year to a journal’s content published in the prior 2 years, divided by the number of substantive, scholarly items published in that journal in those same 2 years”. In other words, impact is defined as the direct effect in one year of the journal’s content published the two preceding years. Easy and fair enough. Nevertheless, the Impact Factor has a copyright, and this mathematical calculation can be officially done only by one private entity, Thomson Reuters. And things go downhill from there.

In their procedures it is established that “the items counted in the denominator of the impact factor are identifiable in the Web of Science database by having the index field document type set as Article, Review, or Proceedings Paper”. This means that the impact of a journal is restricted only to those items included in the Web of Science (WoS). Anything not in WoS does not count, even though their formula clearly states that it includes the “scholarly items”. Nevertheless, surely it would be straight forward for any scientific journal to be included. In fact it would be expected, considering the growing importance given to Thomson Reuters’ IF, that inclusion in the database is almost automatic for consistently published peer-reviewed, scholarly journals. In their words “A journal accepted for coverage in the Thomson Reuters citation database is reviewed by experts who consider the bibliographic

and bibliometric characteristics of all article types published by that journal”, but more importantly that “this journal-specific analysis identifies the journal sections, subsections, or both that contain materials likely to be considered scholarly works, and which therefore have the potential to be cited”. Therefore, by their own standards, anything that is consistently cited in literature and thus has impact in science, should be included in their database and have an impact factor.

So, if journals like *Lankesteriana* are not accepted in the SCI index and provided an official impact factor, it must mean that they are not of common usage in scientific literature. But, is that really the case? With the printing of volume 15(3) in December, *Lankesteriana* celebrated 15 years of publishing, and 8 years dedicated exclusively to the Orchidaceae family. During those 15 years the journal published 465 papers and abstracts. In the year 2015 alone, materials published in *Lankesteriana* were cited, at least (I am sure I missed some publications), by 433 authors, and in 146 articles published by 89 different journals world wide. *Isn't that impact?* \*

**Where is Lankesteriana cited?** *Lankesteriana* was cited in papers published by 89 different journals last year (Table 1). Our journal is, as expected, frequently featured in the popular orchid magazines like *Die Orchidee* and *Orchids*. Nevertheless, it is the leading journals in botany that actually cite our journal the most. The top three journals that cited *Lankesteriana* the most in 2015 were *Phytotaxa* (IF: 1.797), *Annals of Botany* (IF: 3.654) and *Botanical Journal of the Linnean Society* (IF: 2.534), all indexed by SCI. In

\* The original citation data used in the editorial can be obtained from the author upon request.  
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TABLE 1. Top three journals that cited Lankesteriana the most in 2015.

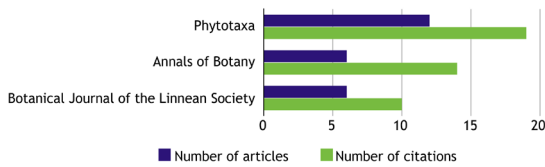
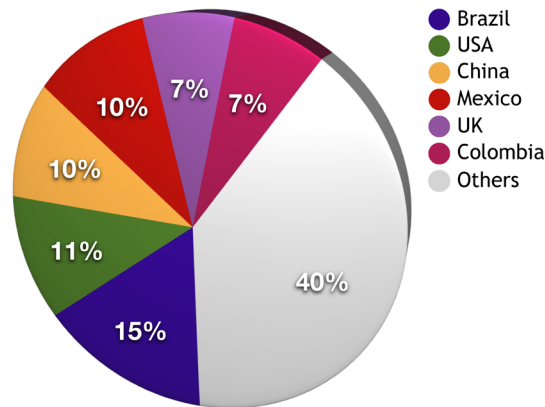


TABLE 2. Affiliation countries of the authors that cited Lankesteriana in 2015.

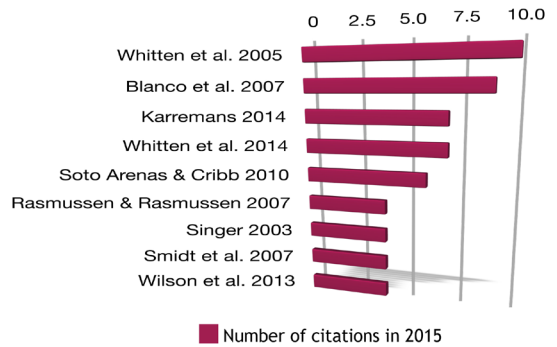


fact, only three out of the first ten journals that cited *Lankesteriana* most frequently this year are not indexed (including ourselves). The journal itself appears in the sixth position with only four of the published articles last year citing our own journal; about one fifth of all published articles.

**Who cites Lankesteriana?** Out of the 433 authors that cited *Lankesteriana* in 2015 the first three that cited it the most are associated with Lankester Botanical Garden. Nevertheless, from there on they are mostly external authors. Three external authors cited *Lankesteriana* in at least five of their publications this year alone, twelve others cited the journal at least three times, and almost 50 different authors cited *Lankesteriana* in at least two of their publications in 2015. The vast majority are, expectedly, orchid specialists.

The authors citing *Lankesteriana* in 2015 are also quite diverse in their provenance. According to their affiliations (not citizenship) they come from 43 different countries. The top countries are Brazil (68 authors), USA (50 authors), Mexico (45 authors), China (45 authors), the UK (31 authors) and Colombia (30 authors). Costa Rica, country of origin of the

TABLE 3. Top cited articles from Lankesteriana in 2015.



journal, does not even make the top ten. This shows that the readership of the journal is by no means merely national or even restricted to Latin America, but that it follows current international tendencies (Table 2).

**What is cited from Lankesteriana?** Out of the 465 citable materials published in *Lankesteriana* from 2001 to 2015, about one fifth was cited at least once in 2015. The five articles that received most citations were, in order, Whitten *et al.* (2005), Blanco *et al.* (2007), Whitten *et al.* (2014), Karremans (2014) and Soto-Arenas & Cribb (2010), with more than five citations this year each (Table 3). These are all papers dealing with the systematics of specific groups within Orchidaceae.

**How about the impact factor (IF)?** We have shown in the previous lines that *Lankesteriana* is in fact found relatively commonly in botanical literature, especially in papers that deal with orchids. Nevertheless, in order to be comparable it is required to have a single value, the impact factor. The 2015 IF would be estimated by Thomson Reuters as all citations in 2015 to the journal's content published in 2013 and 2014, divided by the number of items published in that journal in those same two years. We are of course not allowed to calculate and provide this ourselves. Nevertheless, *Lankesteriana* published 42 papers in 2013 and 2014, and those papers were cited 28 times in papers indexed in the Web of Science (cited 45 times if also non WoS journals, like our own, were to be considered) in 2015, so its impact factor according to Thomson Reuters' criteria would be 28/42. That places *Lankesteriana*'s IF above journals like *Acta Botánica Mexicana*, *Botanical Sciences*, *Brittonia*, *Nordic Journal of Botany*, *Novon*,

*Revista Mexicana de Biodiversidad* and *Revista de Biología Tropical*.

So, where do we stand? *Lankesteriana* has requested, on diverse occasions in the last several years, that it be considered for inclusion in WoS, and given an official IF. In fact, *Lankesteriana* was evaluated by Thomson Reuters and without any explanation included in their Zoological Records (ZR) index. When confronting them about the inclusion in ZR and exclusion from WoS we were told that “Zoological Records is also a good index” and that they “do not actively pursue titles already covered there [ZR] for additional coverage in Thomson Reuters products unless they are well cited”. We nevertheless insisted that they reconsider, and we have not received any response for about two years. In summary, they choose who to consider and when, if considered you may end up in an index were you don’t belong and can’t be moved from there, and they do not need to give any explanation for exclusion, or respond at all for that matter.

Does it matter? Unfortunately it does. Even though we all know the journal’s impact factor does not reflect the citation of our own article, that only a two-year time frame is considered, that the nature of the citation is ignored, that only citation in some

journals are taken into consideration, that the data used for the calculations is not publicly available, and that they can be easily manipulated by self citation, researchers and students are evermore evaluated and compared by the IF of their publications, and as such pressured (I would say even bullied) into publishing in high impact journals. This also means that as not all good science has high immediate impact, only certain topics highly citable, trendy topics will be published by those journals. As a dear friend worryingly stated: “I don’t even start writing a paper if it is not going to a journal of IF=2.5 or above”. It is clear that the IF of a journal by no means reflects how valuable your work actually is, how much it is or will be cited, and even less if you are a good scientist. Nevertheless, it does determine who gets what position, who can access which grant, and even how much you get paid. This is clearly a tainted and biased system that either has to become more democratic and inclusive if it is to be used universally, or has to be eliminated altogether.

We hope for the time being that our authors can get passed the lack of IF and keep considering *Lankesteriana* for publishing the results of their research on the basis of the actual use and quality of the journal.

