



EDITORIAL NOTE

The AABC 2025 Impact Factor

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The decision regarding the submission of manuscripts to journals has been quite a challenge these days, resulting in several discussions (e.g., Jahn & Tullney 2016, Figueiredo et al. 2024) that are not without criticism, for all when scientific quality comes into play (e.g., Amaral 2024). And one of the criteria used by authors is the evaluation of the periodical to which they wish to submit the result of their research. Therefore, year after year, the scientific community eagerly awaits with some anxiety for the Journal Citation Reports (JCR). Published by Clarivate Analytics, the JCR presents several indexes and bibliometric information, including the Impact Factor (IF). As has been stated many times before, the IF is one way that might help to establish a journal's influence in a particular field: the higher the IF, the more influential the papers published in that journal allegedly might turn out to become in that specific area. I use the term "allegedly" because there are several criticisms of the IF assessment (e.g., Nature 2005, Neto 2025) and there are examples of why this might not be the case (e.g., Waltman & Traag 2021). Nonetheless, the IF is still around and all editors, as well as scientists, need to take this index into consideration.

On several occasions, I have attempted to make some brief assessments on how the papers published by the Annals of the Brazilian Academy of Sciences (AABC) reflect on the IF of this journal, the sole, in a broad sense, multidisciplinary periodical edited in Brazil (e.g., Kellner 2023). As has been pointed out many times, a journal's IF in a given year is calculated by dividing the total number of citations received in that year by the journal's articles published in the previous two years, divided by the sum of the articles (or citable items) from those two years. To blur matters a little bit further, the IF of a journal presented in the JCR is always disclosed in the following year. This means that the AABC IF released in 2025 refers to the articles of the AABC published in 2022 and 2023 cited by any journal during 2024. As is clear, not all pieces published by a scientific magazine are considered citable items. This is particularly the case for editorials, forewords, letters (in most cases), comments, notes and corrections (errata).

Considering the JCR 2024-2025 (Clarivate 2025), the IF of the AABC remained the same as the previous year, both lower than the IF-2022 (Table I). Regarding submissions, the number fell from 2021 to 2022 and has been increasing ever since (Table II). The actual quantity of papers (excluding non-citable items by JCR) published by AABC in 2022 and 2023 were 439 and 352, respectively, totaling 791 articles. It differs from the citable articles retrieved by JCR 2024-2025: 423 in 2022 and 351 in 2023, totaling 774 articles. This means that 17 articles published by AABC in the period where the IF-2024

Table I. The IF reported in the Journal Citation Reports for the AABC.

Year	IF	Year	IF	Year	IF
2002	0.469	2010	0.925	2018	0.938
2003	0.510	2011	1.094	2019	1.280
2004	0.435	2012	0.851	2020	1.753
2005	0.653	2013	0.875	2021	1.811
2006	0.737	2014	0.734	2022	1.3
2007	0.895	2015	0.717	2023	1.1
2008	0.881	2016	0.861	2024	1.1
2009	1.074	2017	0.956		

Table II. Number of articles submitted and published by the AABC (excluding editorials, forewords and letters).

Year	Submitted	Published	Year	Submitted	Published
2007	-	60	2016	830	200
2008	176	61	2017	950	250
2009	170	74	2018	1281	300
2010	202	97	2019	1512	301
2011	317	112	2020	1880	350
2012	301	104	2021	1528	424
2013	470	140	2022	1070	439
2014	641	175	2023	1323	352
2015	827	185	2024	1423	376

Table III. Citations in 2024 of articles published in 2022 and 2023 according to the Journal Citation Reports released in 2025.

Art Pub 2022	439
Art Pub 2023	352
Art Pub 2022-2023	791
Art JCR 2022	423
Art JCR 2023	351
Art JCR 2022-2023	774
MAI 2022-2023/2024	0.0215
Cit JCR 2022-2023-T	883
Cit-1 Art JCR 2022-2023/2024	409
ACF-1 JCR 2022-2023/2024	0.5284
Cit-2 Art JCR 2022-2023/2024	184
ACF-2 JCR 2022-2023/2024	0.2377
IF-2024	1.1*
RAIF-1 JCR 2022-2023/2024	2.159
RAIF-2 JCR 2022-2023/2024	3.582
Cit MArt 2022-2023/2024	77-13-12

* For comparison purposes, the correct number is 1.141.

Abbreviations: ACF-1 JCR 2022-2023/2024 – Article Citation Factor concerning articles published in 2022 and 2023 cited at least once in 2024 based on the Journal Citation Reports of 2024 released in 2025 (JCR 2024-2025), ACF-2 JCR 2022-2023/2024 – Article Citation Factor concerning articles published in 2022 and 2023 cited at least twice in 2024 based on JCR 2024-2025, Art JCR 2022 – citable articles published in 2022 according to JCR 2024-2025, Art JCR 2023 – citable articles published in 2023 according to JCR 2024-2025, Art JCR 2022-2023 – citable articles published in 2022 and 2023 according to JCR 2024-2025, Art Pub 2022- articles published in 2022, Art Pub 2023 – articles published in 2023, Art Pub 2022-2023 – articles published in 2022 and 2023, Cit-1 Art JCR 2022-2023/2024 – number of articles published in 2022 and 2023 cited at least once in 2024 according to the JCR 2024-2025, Cit-2 Art JCR 2022-2023/2024 – number of articles published in 2022 and 2023 cited at least twice in 2024 according to the JCR 2024-2025, Cit JCR 2022-2023-T – total number of citations in 2024 of items published in 2022 and 2023 presented by JCR 2024-2025, Cit MArt 2022-2023/2024 – number of citations in 2024 of the three most cited articles published in 2022 and 2023 based on JCR 2024-2025, IF-2024 – Impact Factor of 2024 based on JCR 2024-2025, MAI 2022-2023/2024 – Missing Article Index concerning articles published in 2022 and 2023 not retrieved in the JCR 2024-2025, RAIF-1 JCR 2022-2023/2024 – Reescalated Article Impact Factor concerning articles published in 2022 and 2023 cited at least once in 2024 based on JCR 2024-2025, RAIF-2 JCR 2022-2023/2024 – Reescalated Article Impact Factor concerning articles published in 2022 and 2023 cited at least twice in 2024 based on JCR 2024-2025.

was calculated were not considered in the JCR 2024-2025. While annoying, this situation is not new and has been observed on previous occasions, leading to the introduction of the Missing Article Index (MAI, see Kellner 2020b). The MAI of the articles published by the AABC during 2022 and 2023 that were not considered in the JCR 2024-2025 is 0.0215 (see Table III), showing that over 2% of the articles published by the AABC were not considered. It should be noted that most citations are always expected to come from articles published in the first year of the two-year period, since, by being available for a longer period, they have greater citation potential. Regarding the AABC, 16 out of the 17 missing articles were published in 2022, whose omission could have negatively impacted the IF-2024 of this journal. It would be interesting to know the MAI of other journals and what effect it might have.

According to JCR 2024-2025, the three most cited articles in 2024 were published during 2022, with the most cited receiving 77 citations (Morrone et al. 2022), and the second (Ellwanger et al. 2022) and third (Zhang et al. 2022) most cited receiving 13 and 12 citations, respectively. This difference between the most cited article and the other two is greater than that established in a previous analysis (see Kellner 2020c). Oddly, the most cited article was classified by the authors in Animal Science, an area where there is still lots of potential for improvement (Kellner 2024).

Of the 774 articles considered by JCR 2024-2025, 409 were cited at least once, resulting in an Article Citation Factor (ACF-1, see Kellner 2020a, 2023) of 0.5284. This means that a little over half of the articles published in 2022 and 2023 were cited at least once during 2024. According to JCR 2024-2025, only 184 out of the 774 articles published were cited two or more times, resulting in an ACF-2 of 0.2377 (Table III). These numbers are slightly below the analysis done regarding the IF-2022 of this journal (Kellner 2023). The Reescalated Article Impact Factor (RAIF, Kellner 2020a) considering only the articles cited at least once in 2024, results in a RAIF-1 for the AABC of 2.159; if only articles with two or more citations were considered, the RAIF-2 of the AABC would be 3.582. In both cases, the numbers are slightly lower than the results obtained based on the JCR 2022-2023 (Kellner 2023).

From this brief overview, it is clear that the number of uncited articles published by the AABC is still quite high and has a negative impact on the journal's IF. There is still work to be done, especially considering the special occasion when, in 2028, the AABC will complete its first centenary of uninterrupted publication. It would be nice to have better bibliometric indexes by then.

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