



EDITORIAL NOTE

Special volume on Paleontology at the AABC

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The centenary of the Brazilian Academy of Sciences (ABC) was a date much commemorated by scientists and institutions in Brazil. To celebrate this important occasion, some special issues were announced by the Annals of the Brazilian Academy of Sciences (AABC) and published in subsequent years (e.g., Crespilho 2018, Kellner 2019). Among these, Kellner & Soares (2019) organized a special issue (AABC 91 Suppl. 2) focusing primarily on contributions concerning the study of fossils, published under Earth Sciences. This field was latter subdivided into Paleontology and Geosciences (Kellner 2021).

In order to get a general idea of how papers published by the AABC are contributing to the Impact Factor (IF) of this journal, I have carried out brief surveys on some specific areas (e.g., Kellner 2020a, b, c, d). Here I will make a brief assessment on how the papers of AABC 91 Suppl. 2 have impacted the AABC IF-2020 (1,753) and AABC IF-2021 (1,811). This issue consists of 20 articles (Kellner & Soares 2019), of which 18 would be currently classified in the Paleontology section of the AABC and these will be the ones addressed here. As has been shown before, there are divergences in the number of articles and citations presented by the Journal Citation Reports (JCR) compared to the Web of Science (WoS) page (e.g., Kellner 2020a, d). I will use the data presented by JCR, as apparently these are the values considered and used for the IF calculation. I obtained the data using the Journal Citations Reports (2022) that was recently made available, using the respective filters for the years 2020 and 2021.

In 2020 and 2021, all 18 papers published in Paleontology published in the special issue considered here (AABC 91 Suppl. 2-Paleo) were found by JCR, resulting in a Missing Article Index (MAI, see Kellner 2020b) of zero. As has been pointed out before, one way to have a general idea on how selection of articles could influence the IF of a journal is the Article Citation Factor (ACF), a simple ratio between cited articles in relation to the number of published articles in a particular issue or timespan (Kellner 2020a). This can be expanded into minimum number of citations of one, two, three and so on, taking into account the number of citations that may or may not influence positively a journal's IF. If the Impact Factor of a Journal is three, for example, all articles that have lesser citations tend not to positively influence the IF of that journal.

Regarding AABC 91 Suppl. 2-Paleo, of the 18 articles published, five were not cited in 2020, resulting in an $ACF_{2019/2020}$ of 0.7222, and 10 received less than two citations, resulting in an $ACF_{2019/2020}$ of 0.4444 (Table 1). In 2021, only one article was not cited ($ACF_{2019/2021}$ - 0.9444) and five received two or fewer citations ($ACF_{2019/2021}$ - 0.7222). Compared to previous analyses using this parameter, AABC 91 Suppl. 2-Paleo clearly stands out positively from other issues (or scientific fields) addressed previously (Kellner 2020b, c, d).

Table I. Citations and indexes concerning the articles on Paleontology published in the issue 91 Supplement 2 by the Annals of the Brazilian Academy of Sciences that have been considered in the Impact Factor of 2020 and 2021.

Art Pub 2019	18
Cit Art ₁ 2019/2020	13
Cit Art ₂ 2019/2020	08
Cit Art ₁ 2019/2021	17
Cit Art ₂ 2019/2021	13
Cit 2019/2020	32
Cit 2019/2021	77
Cit MCAr 2019-2020	06-05-03
Cit MCAr 2019-2021	16-12-10
ACF ₁ 2019/2020	0.7222
ACF ₂ 2019/2020	0.4444
ACF ₁ 2019/2021	0.9444
ACF ₂ 2019/2021	0.7222
91 Suppl. 2 IF-2020	1.778
RAIF ₁ 2019/2020	2.462
RAIF ₂ 2019/2020	3.375
91 Suppl. 2 IF-2021	4.278
RAIF ₁ 2019/2021	4.529
RAIF ₂ 2019/2021	5.615

Abbreviations: Art Pub 2019 – number of articles on Paleontology published in AABC 91 Supplement 2, ACF₁2019/2020 – Article Citation Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least once in 2020, ACF₂2019/2020 – Article Citation Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2020, ACF₁2019/2021 – Article Citation Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least once in 2021, ACF₂2019/2021 – Article Citation Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2021, Cit 2019/2020- number of citations in 2020 of articles on Paleontology published in AABC 91 Supplement 2, Cit 2019/2021- number of citations in 2021 of articles on Paleontology published in AABC 91 Supplement 2, Cit Art₁2019/2020 – number of articles on Paleontology published in AABC 91 Supplement 2 cited at least once in 2020, Cit Art₂2019/2020 – number of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2020, Cit Art₁2019/2021 – number of articles on Paleontology published in AABC 91 Supplement 2 cited at least once in 2021, Cit Art₂2019/2021 – number of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2021, Cit MCAr 2019/2020 – number of citations in 2020 of the three most cited articles on Paleontology published in AABC 91 Supplement 2, Cit MCAr 2019/2021 – number of citations in 2021 of the three most cited articles on Paleontology published in AABC 91 Supplement 2, RAIF₁2019/2020 – Reescalated Article Impact Factor of articles on Paleontology published in AABC 91 Supplement 2 cited in 2020, RAIF₂2019/2020 – Reescalated Article Impact Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2020, RAIF₁2019/2021 – Reescalated Article Impact Factor of articles on Paleontology published in AABC 91 Supplement 2 cited in 2021, RAIF₂2019/2021 – Reescalated Article Impact Factor of articles on Paleontology published in AABC 91 Supplement 2 cited at least twice in 2021, 91 Suppl. 2 IF 2020 – Impact Factor of 2020 of articles on Paleontology published in AABC 91 Supplement 2, 91 Suppl. 2 IF 2021 – Impact Factor of 2021 of articles on Paleontology published in AABC 91 Supplement 2.

If only AABC 91 Suppl. 2-Paleo is considered, the AABC 91 Suppl. 2 IF-2020 would be 1.778, which is basically the same of the AABC IF-2020 (1,753), but the AABC 91 Suppl. 2 IF-2022 (4.278) is more than the double that of the AABC IF-2021 (1,811). The Reescalated Article Impact Factor (RAIF, Kellner 2020a) for articles published in AABC 91 Suppl.2-Paleo cited at least once in 2020 (RAIF₁2019/2020) and 2021 (RAIF₁2019/2020) is 2.462 and 4.529, respectively. Here it can be concluded that the selection of papers in paleontology definitively contributed to the bibliometric indexes of the AABC. Regarding papers cited at least two times in 2020 and 2021 (RAIF₂2019/2020 and RAIF₂2019/2021) RAIF is 4.529 and 5.615, respectively. This confirms that, judging by the number of citations, papers of impact have been published by the AABC in this field. The different values from 2020 and 2021 also indicate that it takes some time for articles to be absorbed by the scientific community in this area of study. This is also reflected by the three most cited articles in 2020 and 2021 (Table I).

This brief analysis shows that at least concerning this issue (AABC 91 Suppl. 2), the articles in the field of Paleontology have contributed substantially to the AABC IF-2020 and AABC IF-2021 and that a more careful selection of articles has the potential to improve the bibliometric indexes of this journal, an obvious conclusion.

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