""""""current comments"

Journal Citation Studies. V. Is Paleontology a Life or a Physical Science? *JCI* Reveals Gap in Coverage of Paleontology and Need for Better Small Journal Statistics

March 28, 1973

The number of professional paleontologists in the world must be small. Nevertheless it is surprising that only two of them have written me about coverage of the Journal of Paleontology in Current Contents. One of them told me recently1 how important it is to cover this and a few other small paleontology journals in CC \(\textstyle Physical \(\textstyle \) Chemical Sciences. I was surprised at this because one of our Editorial Advisory Board members had just said that, without the least hesitation, it belonged in CC/Life Sciences! Obviously, the simplest but most expensive solution to this problem is to put it in both. Some of our readers might even argue that it belongs in CC/Behavioral, Social & Educational Sciences because of the importance of paleontology for a variety of natural science disciplines.

I had hoped that our JCI Detail Listings would help. 2.3 The JCI had already revealed to us that this journal should long ago have been covered in our Science Citation Index. We may even possibly have to pick up some back years in preparation for the next 1970-1974 Five Year Cumulation of the SCI. Since we had never processed the journal, I can't tell except by eyeballing the journal itself what it cites.

I could tell from the JCI what other journals cited it in 1969, and that data is shown in Figure 1. This indicates an interesting balance between biological and earth-science journals that have cited the Journal of Paleontology. The list also illustrates why a quarterly sample of one-million odd references may be inadequate for evaluating a small journal. The next time we do a JCI run it will cover an entire year of data, probably 1972. And we will also obtain details on the "all other" category, which is sometimes the only basis one has for classifying a journal. If the fourteen other journals that cited Journal of Paleontology turned out to be entirely biological, that would be significant.

I am sure that some of our eminent advisory board members like Sir Edward Bullard, Harold Urey, Joshua Lederberg, among others, won't mind a publicly aired criticism that they too missed the obvious. Urey's recent letter to the editor of Nature4 on cometary collisions and geological periods shows how important this field is to his thinking. But that precisely is what the JCI is all about. Citation analysis reveals what should have been obvious all along.

Item	Number of Citations to <i>J. Paleont</i>	Citing Journal
1.	40	New Zealand J Geol Geophys
2.	32	American Zoologist
3.	32	Geol Soc America Bull
4.	28	Canadian J Earth Sci
5.	28	J Sedimentary Petrol
6.	28	Science
7.	24	Biol Rev Cambridge Philosophical Soc
8.	20	Anais Acad Brasileira Ciencias
9.	16	Beitr Meereskunde
10.	16	J Protozool
11.	16	Palaeogeogr Palaeclimatol Palaeoecol
12.	12	Annu Rev Microbiol
13.	12	Doklady Akademii Nauk SSSR
14.	12	Evolution
15.	12	J Natural History
16.	12	Marine Biology
17.	12	Proc Entomol Soc Washington
	56	All Other (14 Journals)
	408	Total (in 31 Journals)

Figure 1. Journals that Cited Journal of Paleontology in 1969

- 1. Towe, K.M. Personal communication. February 26, 1973.
- Garfield, E. ISI®'s Journal Citation Index data base, a multi-media tool. Current Contents No. 16, April 19, 1972, pp. 5-8.

Upon further reflection, I believe that the designation "Journal Citation Index" is inaccurate, and may even be misleading, since the JCI is not in fact a counterpart to our author citation index. Rather the JCI is a series of tables and listings which provide statistical data in detail and in summary form.

This article was reprinted in the February 7, 1973 issue of Current Contents. It includes lists of the 150 most-cited and the 150 high-impact journals. Due to

dozens of requests, we have expanded these lists to include the 1000 most-cited journals in science and technology. (Each list has three parts, which arrange journal title abbreviations in different ways: alphabetically, by citation frequency, and by citation impact. An appendix to the lists gives the full title for each of the abbreviations used.)

In response to requests, we are making these lists available. As each batch of requests comes in, we will run off sufficient copies on our computer. The charge for each set is \$100.00. Subsequently we will prepare the "detail listings" for at least 1000 journals, and make them available at a cost to be announced in the near future.

 Urey, H.C. Cometary collisions and geological periods. Nature 242(5392): 32-33, 1973.