

# INTERNATIONAL CITATIONS OF THE SPANISH GEOGRAPHY JOURNALS

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There is an increasing interest to define quantitative criteria in order to evaluate the importance and impact of different scientific journals. In the case of Geography journals, there are contrasting trends: many of them have disappeared or languish in a marginal position, experiencing difficulties to receive papers of enough quality, whereas a reduced number of publishing houses control the edition of those journals considered as the best ones. The introduction of certain quantitative evaluation criteria has contributed to their consolidation and prevailing position.

At present it is worldwide recognised that the valuation of journals must be based (although not exclusively) on their international impact. This is the case of the indexes developed by the Institute for Scientific Information (ISI), particularly the Impact Factor Index. This paper analyses the citations received in international journals by the papers published in Spanish Geography journals, and their recent evolution. There are some previous related papers which quantify the international impact of the Spanish Geography journals. At present, The University of Granada calculates an impact Factor index every year according to the number of papers published and the total number of citations received that year. Nevertheless, they only consider the journals appearing in the Social Sciences Citation Index (SSCI) and not the journals of the Science Citation Index (SCI). The difference is of vital importance, since almost all citations received by papers of Physical Geography published in international journals are removed from their analysis.

In this paper the SCOPUS database (<http://www.scopus.com>) was used, instead that of the Web of Knowledge (<http://www.isiwebofknowledge.com>). SCOPUS is directly managed by Elsevier and includes more journals than any other bibliographical database, among them most of the Spanish Geography journals. The use of SCOPUS consisted on introducing the name of the Spanish journal, and unloading all the papers containing that name in the list of references of any paper included in the database. This procedure allowed us to compile all the papers published in international journals which contain citations to papers published in Spanish Geography journals. From this database several indexes were computed: (i) the total number of citations received by each Spanish Geography journal, (ii) which were the most

cited papers among those published in Spanish journals; (iii) which were the international journals citing more frequently Spanish Geography papers; (iv) and what was the mean citation lag for the Spanish papers in the international literature.

All the citations were checked in order to avoid any mistake or confusion with the name of the journal. For instance, the journal *Pirineos* can be confused with references in which the word "Pirineos" appears in the title of a cited paper; or the journal *Estudios Geográficos* can be confused with other journals such as *Anales de la Sociedad Argentina de Estudios Geográficos* or with *Boletín de Estudios Geográficos*; and the journal *Informaciones Geográficas* has homonymous journals in Chile and México, thus obligating to distinguish the citations received by each journal. The period considered goes from 1996 to the end of 2007, which is the temporal rank of SCOPUS, though citations can be referred to papers published in previous years.

The main results obtained are the following:

1. The journals with the highest number of international citations were *Pirineos* (380 citations received between 1996 and 2007) and *Cuaternario y Geomorfología* (218 citations), though strictly speaking they are not geographical journals, *Estudios Geográficos* (175 citations), *Cuadernos de Investigación Geográfica* (105 citations), *Documents d'Anàlisi Geogràfica* (64 citations), *Boletín de la Asociación de Geógrafos Españoles* (60 citations), *Geographicalia* (54 citations) *Lurralde* (54 citations), *Scripta Nova* (54 citations), *Ería* (49 citations), *Anales de Geografía de la Universidad Complutense* (44 citations), *Cuadernos de Geografía* (43 citations), *Investigaciones Geográficas* (39 citations), *Papeles de Geografía* (30 citations), and the rest with lower values.

2. The number of international citations per year was 31.6 in the case of *Pirineos*, 18.2 for *Cuaternario y Geomorfología*, and 14.6 for *Estudios Geográficos*, being lower than 10 for the rest of the journals. In any case these are very low values compared to the number of citations received by international Geography journals included in the SCI or in the SSCI during the year 2006 (for instance, *Geomorphology*, 3268 citations, *Catena*, 2129 citations, *Hydrological Processes*, 4862 citations, *Geografiska Annaler Series A*, 728 citations, *Environmental Planning*, 2195 citations, *Progress in Human Geography*, 1410 citations).

3. If only citations received by the papers published after 2000 are considered, then the most cited journals were *Cuaternario y Geomorfología* (47 citations), *Scripta Nova* (43 citations), *Boletín de la Asociación de Geógrafos Españoles* (34 citations), *Cuadernos de Investigación Geográfica* (23 citations), *Investigaciones Geográficas* (22 citations), *Documents d'Anàlisi Geogràfica* (21 citations), *Pirineos* (19 citations), *Estudios Geográficos* (13 citations), *Ería* (12 citations), *Geographicalia* (11 citations) and *Anales de Geografía de la Universidad Complutense* (10 citations). From that it can be deduced that there is a reduced number of Geography journals (the three first cited in this paragraph) with a remarkable impact of their most recent papers, receiving an average annual number of citations of between 4.3 and 5.9. Other journals, which had a high number of citations for the whole study period, have reduced recently their international impact. This was the case of *Pirineos*, which only received an average of 2.4 citations per year after 2000; A similar trend was found for *Cuadernos de Investigación Geográfica* (2.9 citations per year of those papers published after 2000); and for *Estudios Geográficos* (1.6 citations per year).

4. A classification of the Spanish Geography journals can be done according to the total number of citations and the evolution of citations in the last few years: (i) Journals receiving a relatively high number of citations in international journals overall, but which experienced a remarkable decrease in the number of citations in recent years; (*Pirineos*, *Estudios Geográficos* and *Cuadernos de Investigación Geográfica*). (ii) Journals with a remarkable impact during their history, but which experienced a slight decrease in the last few years (*Cuaternario y Geomorfología*). (iii) Journals that increased their number of citations since 2000 and with a low mean citation lag (*Scripta Nova*, *Boletín de la Asociación de Geógrafos Españoles* and *Investigaciones Geográficas*). (iv) Journals with a low number of citations and with an intermediate mean citation lag (*Documents d'Anàlisi Geogràfica*, *Geographicalia* and *Anales de Geografía de la Universidad Complutense*). And (v) the rest of the journals which had a very low number of citations and did not show evidence of retrieval since 2000.

5. Among the papers published in Spanish Geography journals, the most cited ones correspond to the field of Physical Geography. Consequently, the international journals which have most citations to Spanish Geography papers are included in the SCI, particularly *Geomorphology*, *Catena* and *Earth Surface Processes and Landforms*. For this reason, the use of the SSCI journals for evaluating the impact of the Spanish Geography journals must be necessarily complemented by the SCI journals, above all those journals included in the sections of "Geography (Physical)", "Water Resources" and "Environmental Sciences".

