

UKGAP Theme 1: Furthering the Frontiers of the Geosciences

UKGAP Indicator 1: Recognition within research - the number of refereed research papers relating to UK geodiversity

Relevance

Determining the number of published research papers about the UK's geodiversity provides a level of understanding of the importance of UK geodiversity within the academic research community. Since many of the authors of the research papers are also university lecturers, the data may also give an indication of the extent to which UK geodiversity is taught, or used to illustrate fundamental geological principles, within higher education.

Data Sources

Six peer-reviewed periodicals are used as the source data for this indicator:

- *Proceedings of the Geologists' Association*;
- *Palaeontology*;
- *Journal of the Geological Society*;
- *Scottish Journal of Geology*;
- *Proceedings of the Yorkshire Geological Society*;
- *Bulletin of the Geological Society of Norfolk*.

Background to the Data

The six periodicals were selected to provide a reasonable representation of the variety of published British geological journals. Some of them focus on international subjects (*Palaeontology* for example, although with a European bias) and some, by their nature, have a more national or regional focus (*Bulletin of the Geological Society of Norfolk* for example). Between them, the six periodicals also represent different sizes of journal and different readership. The six periodicals were also selected for their ease of data collection, with back issues available online.

The method selected to identify whether papers related to UK geodiversity was kept simple. For the six periodicals listed, each issue from 2006 onwards was considered. In addition, back issues from 1955 onwards at 10-yearly intervals were also considered. In this way, a trend over a wider timeframe could be established. The title of each paper and its abstract were reviewed to confirm whether the paper dealt with any of the many aspects of geodiversity. In fact all papers within the selected journals concerned geodiversity. A direct reference to a UK place was the method used to identify whether the research related to the UK.

Data

Table 1a below shows the total number of peer-reviewed papers within each publication and the number of these that relate to UK geodiversity. The first chart shows the percentage of papers relating to UK geodiversity compared to all papers within the six selected journals. In addition, a separate chart has been produced to portray the relevant data for each publication.

Table 1a: Number of Papers Relating to Geodiversity (Total and UK)

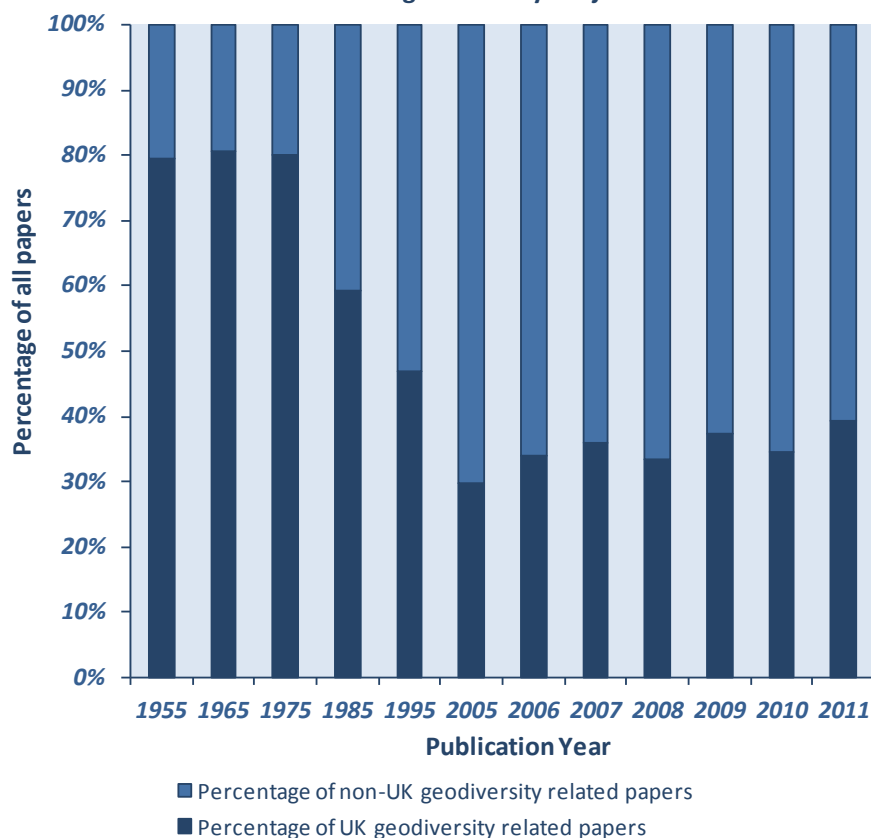
Papers:	Proceedings of the Geologists' Association		Palaeontology		Journal of the Geological Society		Scottish Journal of Geology		Proceedings of the Yorkshire Geological Society		Bulletin of the Geological Society of Norfolk		All Publications	
	Total	UK	Total	UK	Total	UK	Total	UK	Total	UK	Total	UK	Total	UK
1955	24	19	7	5	19	13	n/a	n/a	9	9	4	4	63	50
1965	35	31	44	29	17	11	25	24	13	12	5	5	139	112
1975	36	34	56	33	48	34	26	26	22	22	7	7	195	156
1985	32	28	40	14	86	38	21	21	8	8	5	5	192	114
1995	24	23	45	18	110	24	26	23	13	13	2	2	220	103
2005	21	11	78	10	86	15	12	12	11	11	4	4	212	63
2006	31	18	81	9	89	17	17	17	14	14	6	6	238	81
2007	30	16	92	18	102	26	21	21	9	9	2	2	256	92
2008	25	19	90	11	88	18	17	17	10	10	3	3	233	78
2009	29	25	79	12	98	21	21	21	7	7	2	2	236	88
2010	49	28	75	12	98	17	22	22	8	8	n/a	n/a	252	87
2011	55	42	84	11	91	21	23	23	17	9	n/a	n/a	270	106

Note: At the time of writing, the 2010 and 2011 Bulletin of the Geological Society of Norfolk had not been published.

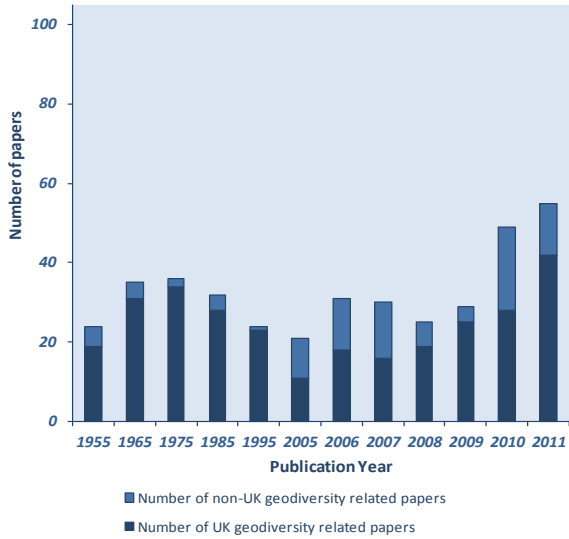
Note: The first publication of the Scottish Journal of Geology available online is 1965.

Note: The first publication of Palaeontology available online is 1957, but it is included here under the 1955 category.

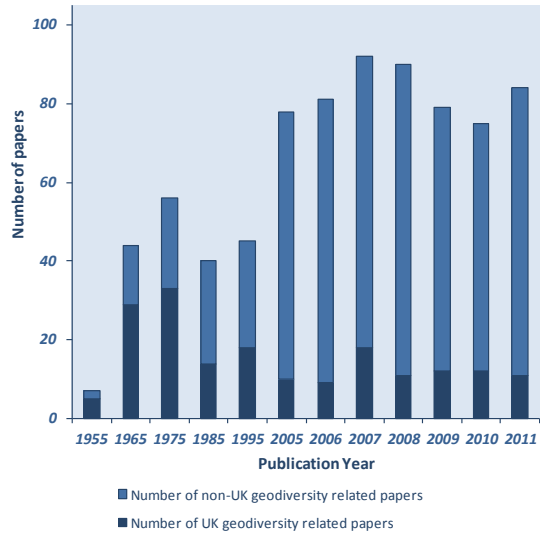
The percentage of geodiversity-related papers which deal with UK geodiversity - all journals



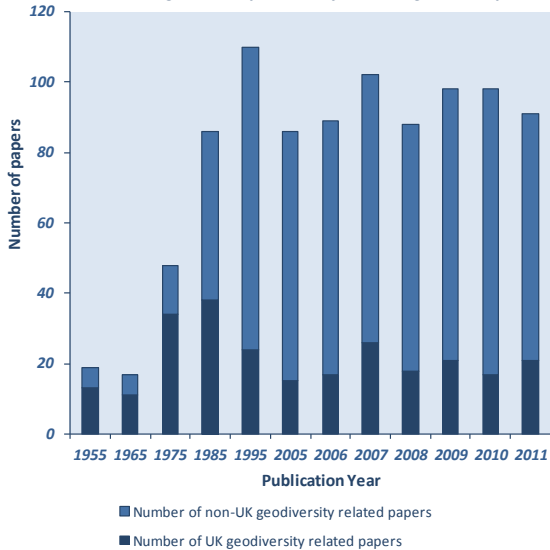
The number and share of geodiversity-related papers which relate to UK geodiversity - *Proceedings of the Geologists' Association*



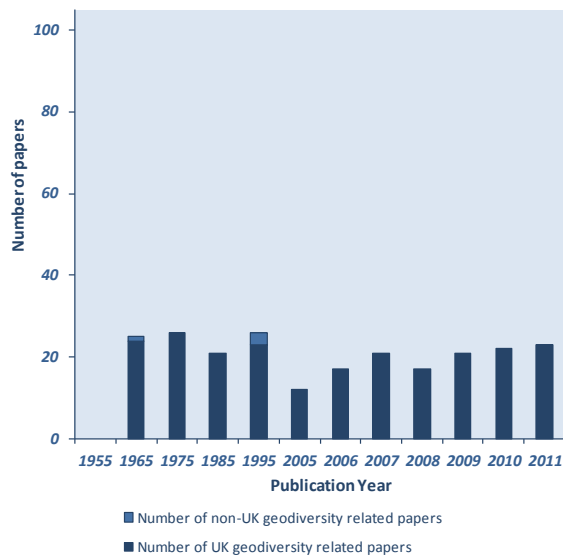
The number and share of geodiversity-related papers which relate to UK geodiversity - *Palaentology*



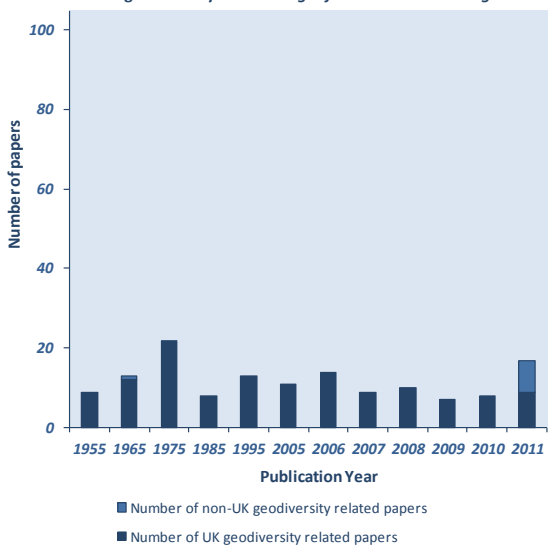
The number and share of geodiversity-related papers which relate to UK geodiversity - *Journal of the Geological Society*



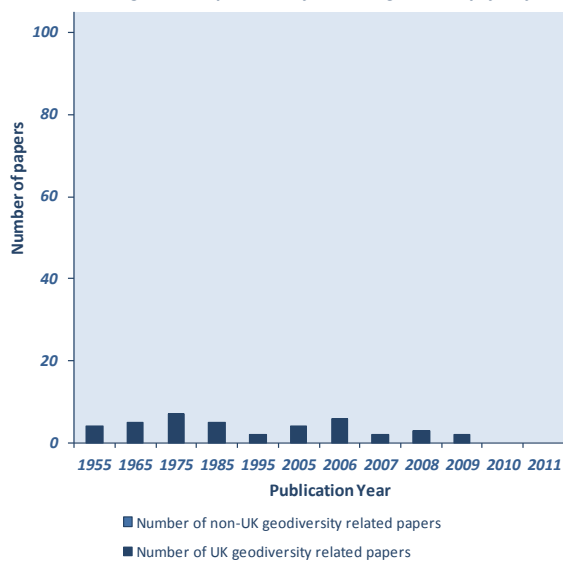
The number and share of geodiversity-related papers which relate to UK geodiversity - *Scottish Journal of Geology*



The number and share of geodiversity-related papers which relate to UK geodiversity - *Proceedings of the Yorkshire Geological Society*



The number and share of geodiversity-related papers which relate to UK geodiversity - *Bulletin of the Geological Society of Norfolk*



Assessment of Trend

To the extent that the regional- or country-based periodicals deal with geodiversity, the focus is almost entirely on the UK, as might be expected, whilst in more broadly-based publications, with the exception of the *Proceedings of the Geologists' Association* (traditionally based on UK fieldwork and applied research), the proportion of papers relating to UK geodiversity is much lower, particularly from 2005 onwards. Some further detail is provided below:

- *The Proceedings of the Geologists' Association*: Between 1955 and 1995, for the years considered, the majority of papers related to UK geodiversity. In 2005, 2006 and 2007 inclusive, only approximately half the papers related to UK geodiversity. However in 2008 and 2009, the number of papers relating to UK geodiversity again predominated. Whilst the total numbers of papers saw a large increase in 2010, the number of papers relating to UK geodiversity did not rise to the same degree. However, in 2011, the total number of papers remained similar to 2010 but the number of papers relating to UK geodiversity saw a rise. This publication has seen an overall increase in UK geodiversity related papers since 2006 and has the greatest total number of contributions during this period (148 papers).
- *Palaeontology*: In 1955, 1965 and 1975 more than half the papers related to UK geodiversity. In 1985 and 1995, less than half of the papers related to UK geodiversity. There was a significant increase in the total number of papers from 2005 onwards (to around 85 papers), but the number of papers relating to UK geodiversity did not rise, but in fact showed a marked decline from the 1995 figure (dropping from 18 papers in 1995 to 10 papers in 2005). From 2005, with the exception of a slight rise in 2007, the number of papers relating to UK geodiversity has been consistently low (at around 11 papers) when compared to the total number of papers.
- *Journal of the Geological Society*: In 1955 and 1965, there were a total number of about 20 papers and a significant proportion of these related to UK geodiversity. There was a significant increase in the total number of papers in 1975 (to 48 papers) and again in 1985 and from 2005 onwards (to around 100 papers). However, whilst the number of papers relating to UK geodiversity initially increased in 1975 (to 34 papers), there was not a similar rise in 1985 (38 papers) and in 1995, there was a decrease (24 papers). From 2005 onwards, the number of papers relating to UK geodiversity remained similar at about 20 papers each year. In 1995 and from 2005 onwards, the number of papers relating to UK geodiversity has been consistently low when compared to the total number of papers.
- *Scottish Journal of Geology*: For all years considered from 1965 onwards, nearly all papers relate to UK geodiversity. From 2005 onwards, all papers within this publication concern UK geodiversity. Overall numbers of papers have remained consistent at around 20 papers per year.
- *Proceedings of the Yorkshire Geology Trust*: With the exception of 2011, all papers within this publication concern UK geodiversity. The numbers of papers published each year has been consistently low.
- *Bulletin of the Geological Society of Norfolk*: All papers within this publication concern UK geodiversity for all years considered from 1955 onwards. This publication has the lowest total number of contributions during the period and has seen an overall decline in numbers since 2006.
- *Overall*: In 1955, 1965 and 1975, the percentage of contributions to the selected publications relating to UK geodiversity is similar, at about 80% for each of these years. In 1985, 1995 and 2005, a decline in the percentage of contributions to the selected publications relating to UK geodiversity is observed with the percentage dropping to just 30% in 2005. From 2006 to 2010 inclusive, the total number and percentage of contributions to the selected publications relating to UK geodiversity both remain surprisingly consistent, at about 85 papers a year and

about 35% of all geodiversity-related articles published by the selected journals. In 2011, both the total number of papers within the selected publications and the number of papers relating to UK geodiversity (106 papers) increased. Therefore the percentage of contributions to the selected publications relating to UK geodiversity in 2011 was similar to the preceding years.

Data Limitations and Future Recommendations

The data are limited by the subjective analysis applied to confirm each individual paper's reference to UK Geodiversity. The same method (if not the same person) should be used each year to complete the analysis.

The six periodicals were selected for their ease of data collection, with back issues available online. This should make future annual updates more straightforward. It would also be worthwhile ascertaining whether the trends observed using data at 10-yearly intervals (from 1955 to 2005) is confirmed by the data for the intervening years.

It would also be interesting to consider the extent to which geodiversity is considered within journals predominately concerning the subject areas of biodiversity or landscape.