

2006 Ocean Drilling Citation Report

Overview of the Ocean Drilling Citation Database

The Ocean Drilling Citation Database, which contained almost 22,000 citation records related to the Deep Sea Drilling Project (DSDP) and Ocean Drilling Program (ODP) in February 2006, is produced by the American Geological Institute (AGI). The database has been on line since August 2002. Beginning in 2006, citation records related to the Integrated Ocean Drilling Program (IODP) have also been included. To generate the GeoRef database, AGI indexes and records citation records from approximately 3,500 foreign and domestic publications (called “serial” in this report), as well as books, reports, serial conference proceedings, monographs, maps, and abstracts published in serial publications but not presented at meetings or conferences (called “abstracts and meetings” in this report), and maps, videos, books, monographs, and theses (called “miscellaneous” in this report). In addition, AGI obtains citation information from international data-exchange partners in Australia, Canada, China, Finland, Germany, Hungary, Italy, the Netherlands, New Zealand, Poland, Russia, Spain, and the United Kingdom. They also have arrangements to acquire metadata with many publishers, including Elsevier, the American Association for the Advancement of Science, Copernicus, Wiley, and 22 of the Geoscience World publishers. There is no guarantee that all publication venues for program research are included, but scientific publications throughout the world are represented. The Ocean Drilling Citation Database is created by AGI by using a series of keywords to extract a subset of citation records related to DSDP, ODP, and IODP research from the AGI GeoRef database. The database resides on the AGI server (<http://odp.georef.org/dbtw-wpd/qbeodp.htm>) and is updated on a weekly basis from the GeoRef database. Users can also access the database via IODP U.S. Implementing Organization (USIO) Web site (<http://iodp.tamu.edu/publications/citations/database.html>) and may download data into common bibliographic software.

Annual Ocean Drilling Citation Report

Introduction

Member countries and funding agencies have long been interested in how program-related research is being disseminated into the scientific community through publications, and the study of the records in the Ocean Drilling Citation Database can provide this information. Since 1999 the Publication Services Department at ODP and, starting in 2004, the IODP USIO on behalf of IODP has produced annual studies of the Ocean Drilling Citation Database. The results of these studies have been included in panel reports and have been used to track program publication trends as well as provide individual reports to member countries.

The USIO receives a copy of the citation database from AGI annually on CD-ROM, and this disc is used to generate citation reports and provide statistics for the program and affiliate organizations that request citation data. The annual CD-ROM provides a snapshot of the database at a specific point in time each year, which allows year-to-year comparisons to be made. A time lag exists between the dates new papers are published and the date a record of the paper is entered into the GeoRef database, depending on the source from which AGI acquires its

information. The CD-ROM production date is timed to best attempt to include most publications from the previous calendar year.

Reports that document statistics by country are based on author affiliation (institutions and countries of contributing authors). Approximately 10% of the records in the database have no affiliation listed. Prior to 1975, AGI did not record affiliation information. In addition, many records lack such information simply because many publication venues do not require it. The number of records in the database without country affiliation information remains relatively constant from year to year because this information is now required by most publishers and AGI.

The 2006 Study

The CD-ROM produced at the end of February 2006 contains 21,520 records. These records can be divided into program (39%) and nonprogram (61%) citation records. These percentages have remained fairly consistent throughout each annual study since 1999 (**Figure 1**). For the 2006 study, program citations include publications produced and published directly by DSDP or ODP. Starting in 2007, the annual study will also document IODP publications. Program publications covered in the 2006 annual study include the *Initial Reports of the Deep Sea Drilling Project* and the *Proceedings of the Ocean Drilling Program* volumes as well as the ODP *Scientific Prospectus*, *Preliminary Report*, and *Technical Note* series but do not include the *JOIDES Journal*. Nonprogram records include citations for serials, abstracts and meetings, and miscellaneous (books, maps, videos, theses, etc.). **Figure 2** shows a comparison between the number of records for program publications and each category of nonprogram publications from 1969 through the end of 2005. **Figure 3** shows a year-by-year comparison between the number of citations for program publications and nonprogram serial publications.

The focus of much of the annual study is on nonprogram publications, with an emphasis on peer-reviewed serial publications. Of special interest are nonprogram peer-reviewed serial publications produced by authors affiliated with program member countries. Authors from approximately 80 countries have contributed to DSDP and ODP nonprogram publications in all citation record categories (abstracts and meetings, serial, and miscellaneous) (**Table 1**). Because scientists may be affiliated with more than one institution or country over time, reports are based on the country affiliation of the first author at the time of publication. Although countries such as the Soviet Union (USSR) and Czechoslovakia have divided into new geographic and governmental entities, the number of records attributed to each is still recorded under USSR and Czechoslovakia. This reflects an effort to report these data in a manner that is historically consistent rather than in a manner that reflects current political boundaries. The footnote to Table 1 denotes the current national affiliation of first authors from specific segments of these two reorganized countries.

The 2006 CD-ROM includes records of 11,000 nonprogram publications whose first author was affiliated with a program member country. Authors from countries that were members of ODP at the conclusion of ODP drilling in September 2003 account for 10,608 of these publications (see **Table 2** for a breakdown by country). Approximately 55% of these publications were first-authored by authors from the United States. The member countries that were the top ten producers of nonprogram publications from 1969 through 2005 are featured in **Figure 4**.

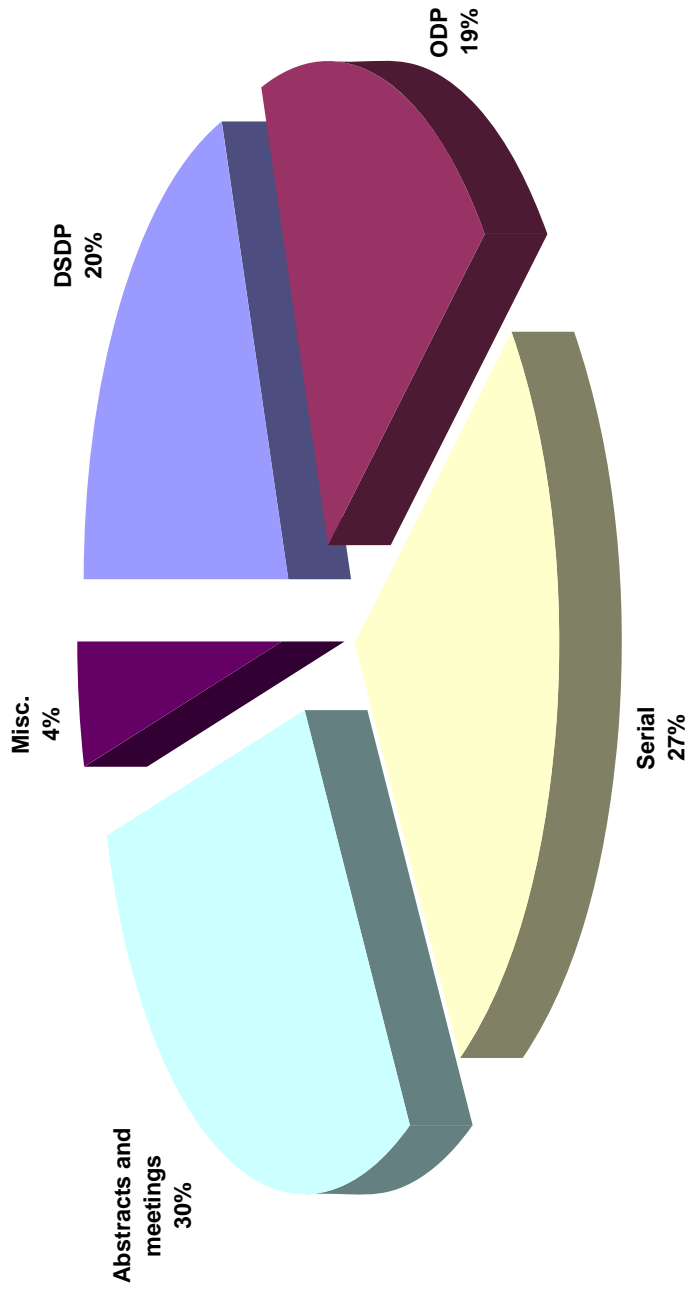
DSDP- and ODP-related research has been published in more than 900 nonprogram publications. Although many of these publications consist of abstracts or publications that have arisen from professional meetings, a significant number of peer-reviewed journals have published 60 or more DSDP- or ODP-related scientific papers. These journals and the number of program-related papers published in them are found in **Figure 5**. The figure footnote lists an additional 20 serial publications that have published 30 or more program-related publications. For the peer-reviewed journals that have published 60 or more DSDP- or ODP-related publications, **Figure 6** shows the annual number of scientific papers per journal.

Program publication productivity has generally been tracked on a year-by-year basis rather than the leg-by-leg scheme. However the program has also reviewed publication data by leg to track whether beginning with Leg 160, when scientists were given the option of publishing their postcruise research in peer-reviewed journals rather than in the ODP *Proceedings*, the ratio of publications in program vs. nonprogram venues has changed. **Figure 7** presents the number of papers published in the ODP *Proceedings Scientific Results* volumes compared to the number of papers that have appeared in the nonprogram venues. Although many scientists have elected to publish their research results in peer-reviewed journals, the majority have elected to publish in the ODP *Proceedings Scientific Results* volumes. What appears to be a progressive drop in the number of ODP publications per leg since the beginning of the program is attributable to three primary factors: research related to more recent ODP legs is ongoing, the final volumes of the ODP *Proceedings Scientific Results* series will not be completed until late 2007, and there is a lag time from publication of research papers to entry of those records in the Ocean Drilling Citation Database.

Annual Updates

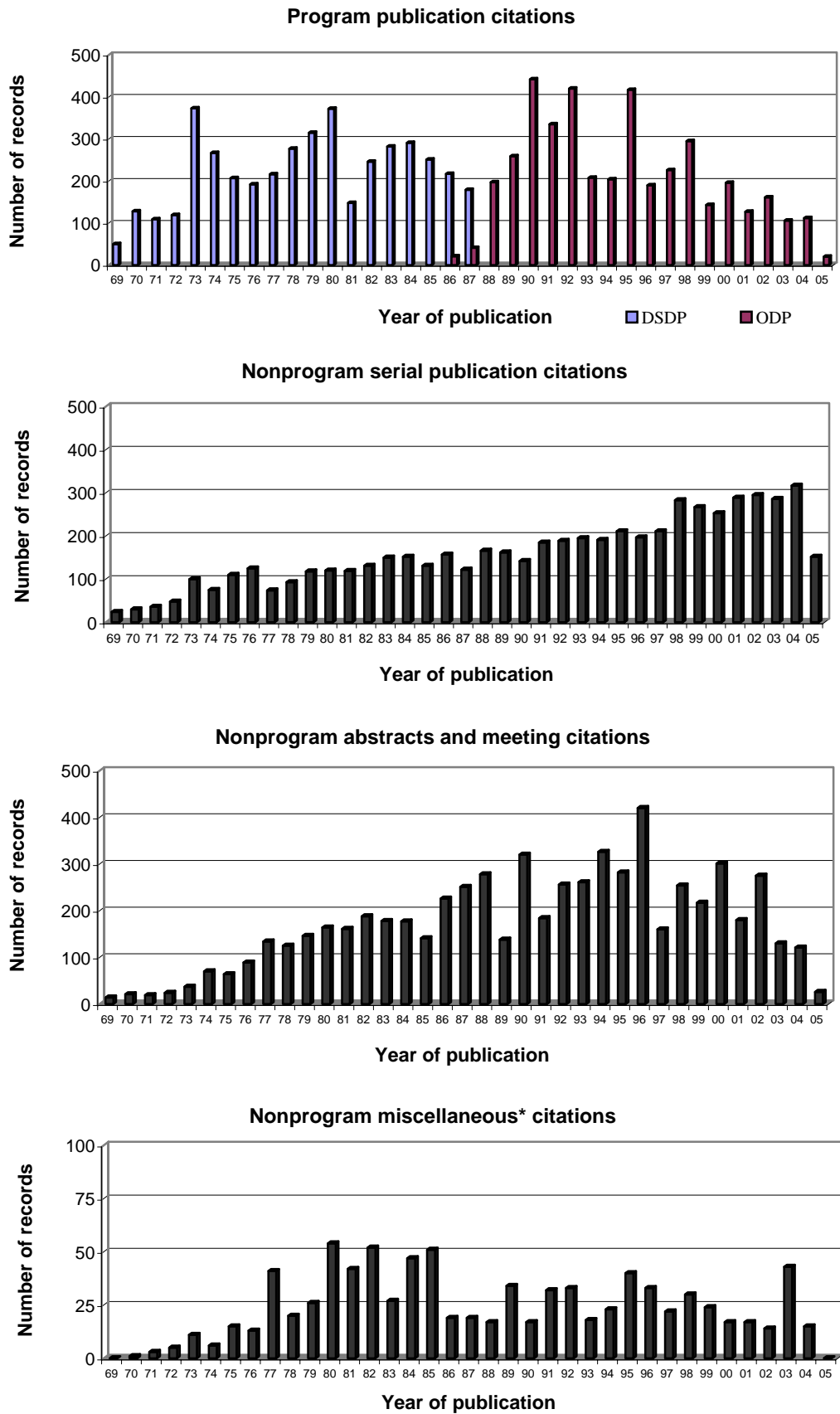
On behalf of IODP, beginning in 2007 the annual Ocean Drilling Citation Report will be updated based on the data that exist in the AGI Ocean Drilling Citation Database as of February of each calendar year and made available online by October of that same year by the USIO. IODP funding agencies, implementing organizations, program management offices, or individual member countries may request customized reports (contact CitationStats@iodp.tamu.edu).

Figure 1. Percentage of program vs. nonprogram records in the Ocean Drilling Citation Database.



Notes: Citation records for abstracts/meetings come from books, reports, serial conference proceedings, monographs, or maps. They also include abstracts published in serial publications but not presented at meetings or conferences (e.g., *AAPG Bulletin*, *Eos*, etc.). Serial publication citation records are drawn from any periodically produced analytic or monographic journal or report, especially those peer-reviewed (e.g., *Nature*, *Science*, or *Journal of Geophysical Research*) but may also include reports from universities, organizations, or government entities (e.g., *Open-File Reports—U.S. Geological Survey*). Miscellaneous citation records include all other maps, videos, books, monographs, and theses.

Figure 2. Breakdown of Ocean Drilling Citation Database records.



* Notes: Miscellaneous citations include maps, videos, books, monographs, and theses. Note difference in scale for miscellaneous citations.

Figure 3. Number of program vs. nonprogram serial citations per year.

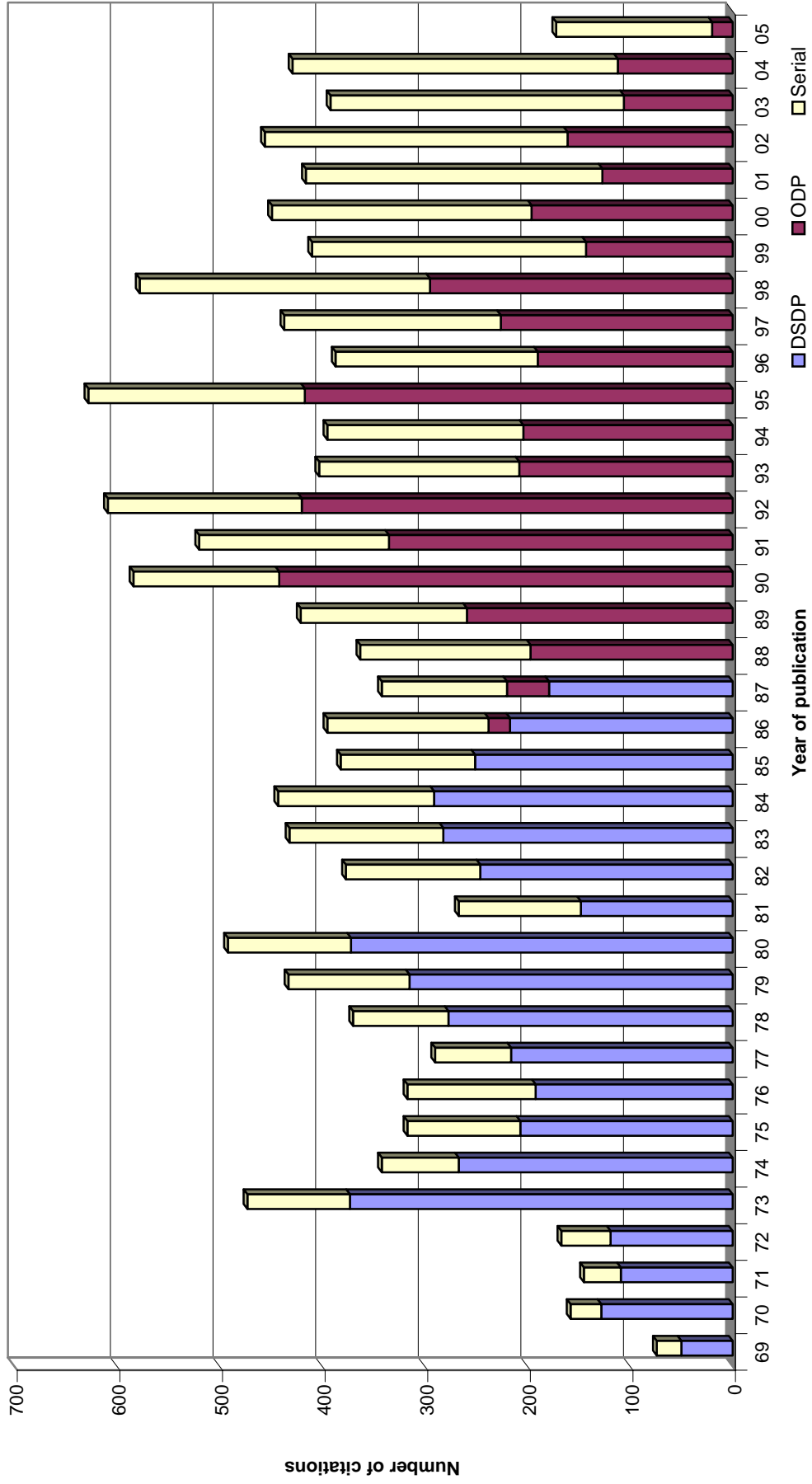


Table 1. Number of contributions to nonprogram publications by authors from each country represented in the database.

Country	Number of publications contributed to	Number first-authored	Country	Number of publications contributed to	Number first-authored	Country	Number of publications contributed to	Number first-authored
Argentina	28	23	Iceland	7	2	Poland	15	7
Australia	414	220	India	128	109	Portugal	33	10
Austria	26	11	Indonesia	5	3	Puerto Rico	7	3
Barbados	2	1	Iran	1	1	Romania	2	0
Belgium	70	19	Ireland	6	2	Saudi Arabia	1	0
Botswana	1	1	Israel	26	19	Senegal	1	0
Brazil	30	19	Italy	397	199	Seychelles	1	1
Bulgaria	2	2	Jamaica	6	2	Solomon Islands	2	1
Canada	822	496	Japan	753	487	South Africa	23	10
Chile	10	2	Lebanon	1	0	South Korea	27	19
Colombia	9	3	Malaysia	1	1	Soviet Union***	282	230
Costa Rica	3	1	Malta	2	2	Spain	113	59
Cuba	6	0	Mexico	38	15	Sri Lanka	1	0
Cyprus	6	0	Morocco	4	2	Sweden	168	96
Czechoslovakia*	9	2	Namibia	1	0	Switzerland	249	126
Denmark	102	47	Netherlands	252	125	Taiwan	32	25
Dominican Republic	1	0	New Caledonia	3	1	Tanzania	4	3
Ecuador	1	0	New Zealand	160	99	Thailand	1	1
Egypt	3	2	Nigeria	4	3	Tonga	2	0
Fiji	1	0	Norway	235	131	Trinidad/Tobago	2	0
Finland	17	12	Oman	3	1	Tunisia	4	3
France	1122	667	Pakistan	3	0	Turkey	12	5
French Polynesia	2	0	Papua New Guinea	4	0	Venezuela	2	2
Germany	1439	951	People's Republic of China**	149	93	United Arab Emirates	1	0
Greece	9	7	Peru	2	0	United Kingdom	1512	867
Hungary	6	5	Philippines	8	3	United States	7003	5958

Notes: These figures only account for citations with author affiliation data. Numbers include serial publications, meetings, and miscellaneous citation records. Countries and associated totals in **bold** were ODP member countries at the conclusion of ODP drilling in 2003. * Czechoslovakia = 3 Czechoslovakia + 4 Czech Republic + 1 Slovak Republic. ** All Hong Kong records are included in People's Republic of China. *** USSR = 146 USSR + 123 Russian Federation + 1 Estonia + 2 Ukraine.

Table 2. Nonprogram publications first-authored by authors affiliated with ODP member countries.*

Member country	Serials	Abstract/ meetings	Miscellaneous	Total
Australia	89	128	3	220
Belgium	9	10	0	19
Canada	188	305	3	496
Denmark	24	23	0	47
Finland	2	10	0	12
France	348	303	16	667
Germany	410	518	19	947
Iceland	2	0	0	2
Ireland	1	1	0	2
Italy	101	97	1	199
Japan	289	169	29	487
Netherlands	87	38	0	125
Norway	77	53	1	131
People's Republic of China	73	20	0	93
Portugal	2	6	2	10
South Korea	14	5	0	19
Spain	36	23	0	59
Sweden	58	37	2	97
Switzerland	59	63	4	126
Taiwan	19	6	0	25
United Kingdom	470	381	16	867
United States	2503	3335	120	5958

* Member countries at the conclusion of ODP drilling in September 2003.

Figure 4. Number of nonprogram publications published by the top ten ODP member countries based on first-author country affiliation.

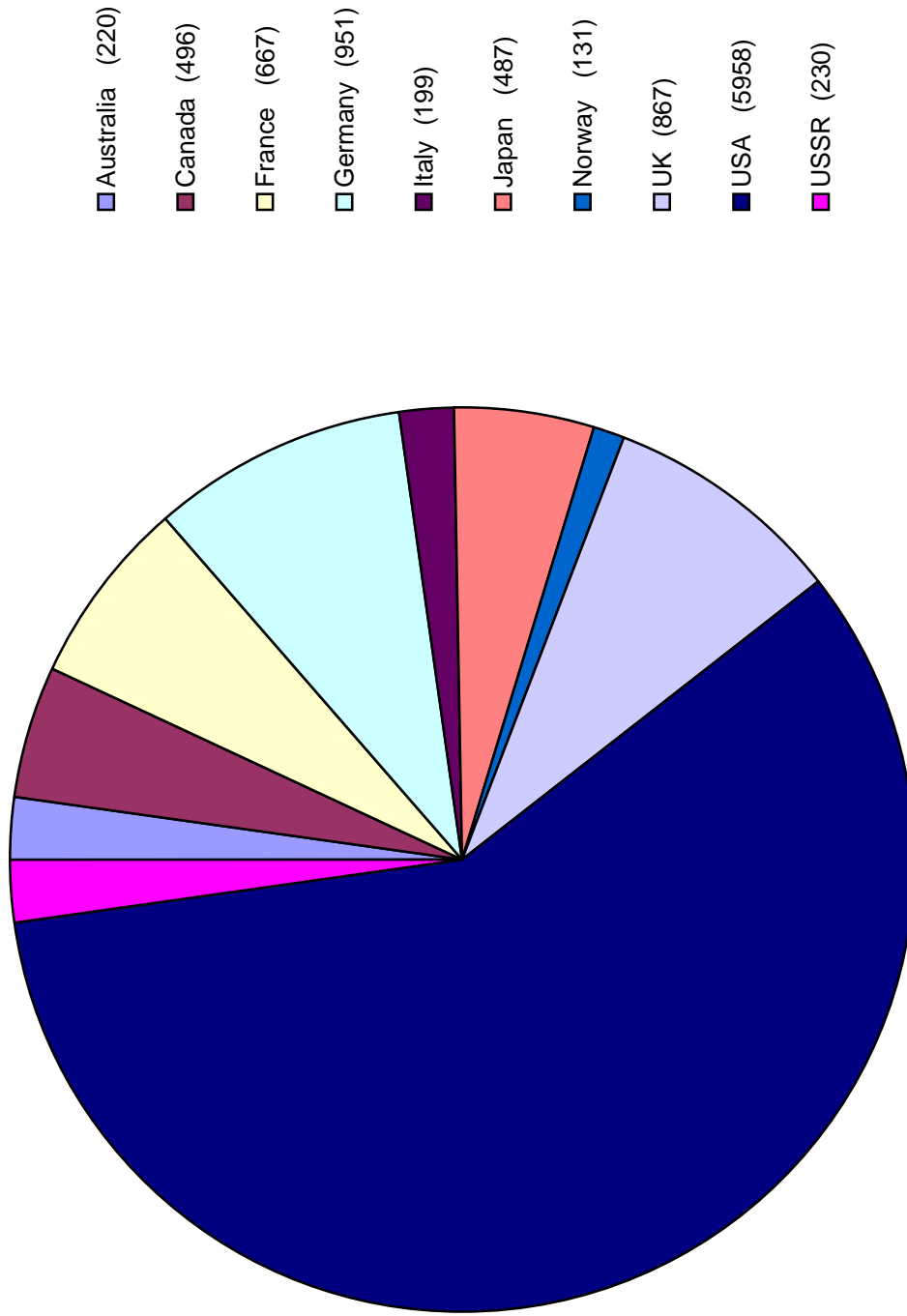
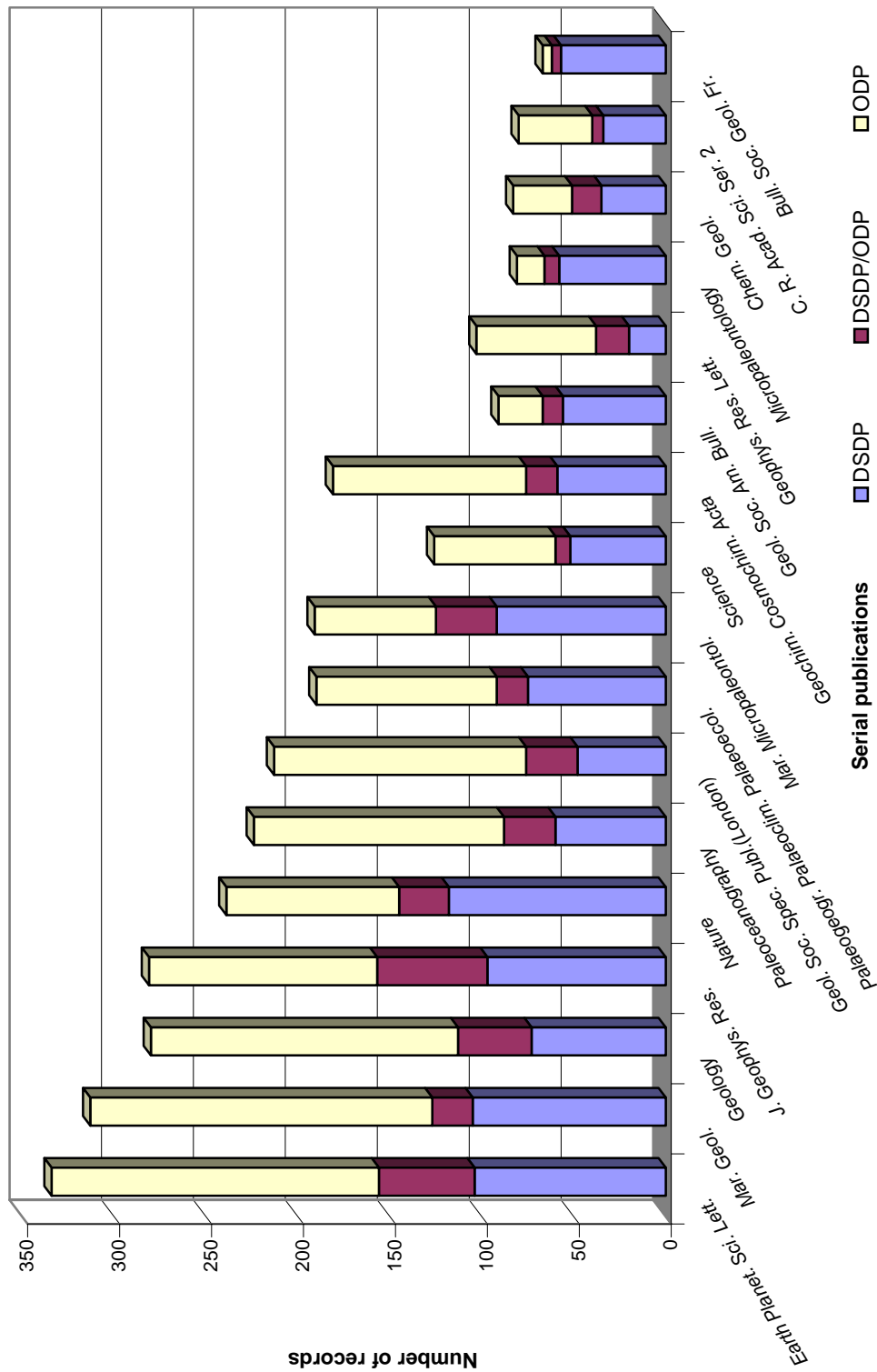


Figure 5. Serial publications with 60 or more peer-reviewed DSDP- or ODP-related papers.



Notes: The following serials had more than 30 DSDP/ODP-related publications: Organic Geochemistry = 58; AAPG Memoir = 57; Special Paper—Geological Society of America = 56; Geochemistry, Geophysics, Geosystems (G3) = 52; Preliminary Report—Ocean Research Institute, University of Tokyo = 52; Journal of Foraminiferal Research = 50; Sedimentary Geology = 48; Special Publication—SEPM = 47; Maurice Ewing Series = 46; Tectonophysics = 41; Canadian Journal of Earth Sciences = 39; Geophysical Journal International = 37; Geologische Rundschau = 36; Open-File Report—U.S. Geological Survey = 35; Oceanology = 35; Trudy—Geologicheskij Institut, Akademiya Nauk SSSR = 35; AAPG Bulletin = 34; Marine and Petroleum Geology = 33; Journal of Paleontology = 32; Global and Planetary Change = 32.

Figure 6. Annual number of scientific papers per serial publication with greater than 60 DSDP- or ODP-related publications.

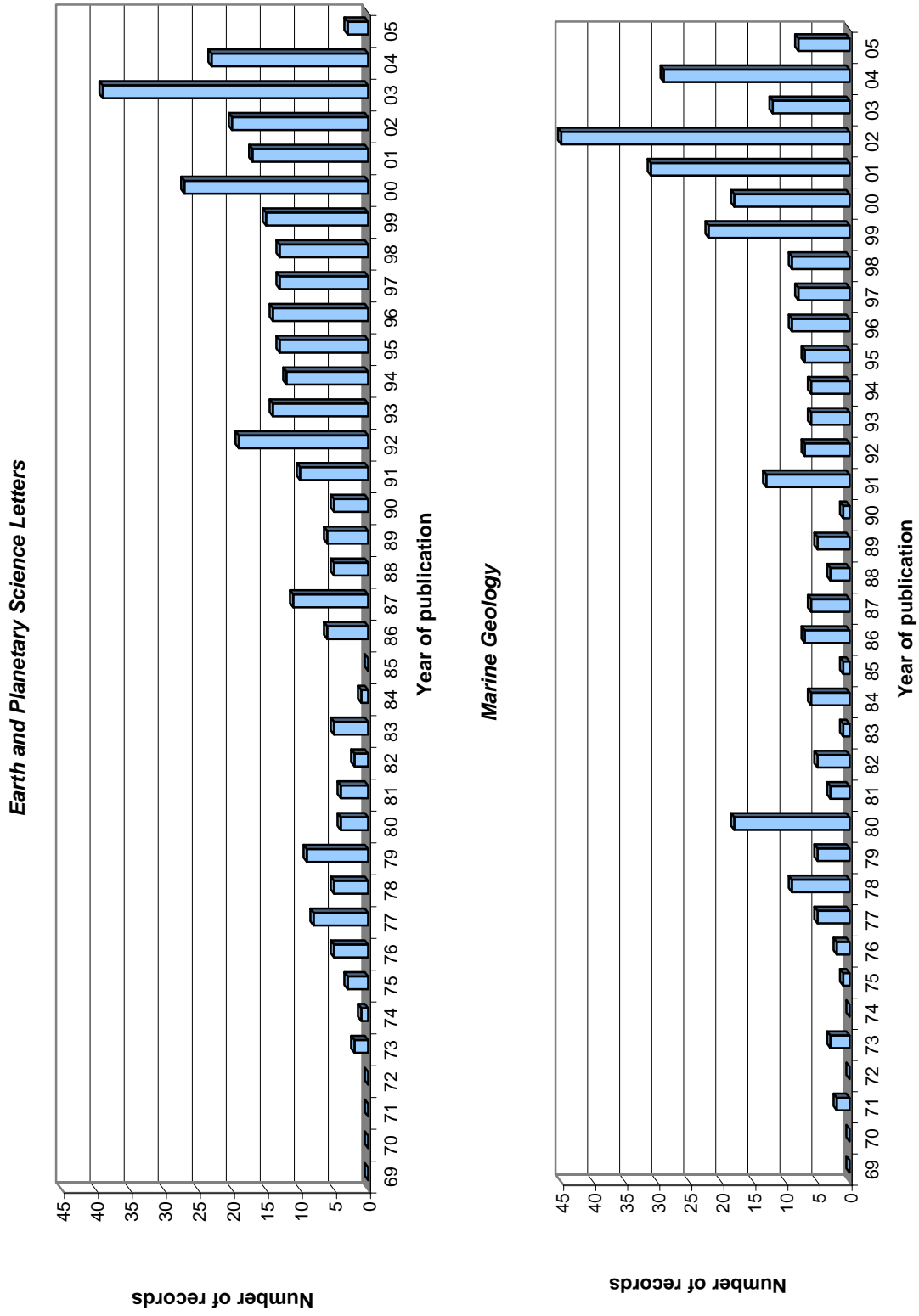
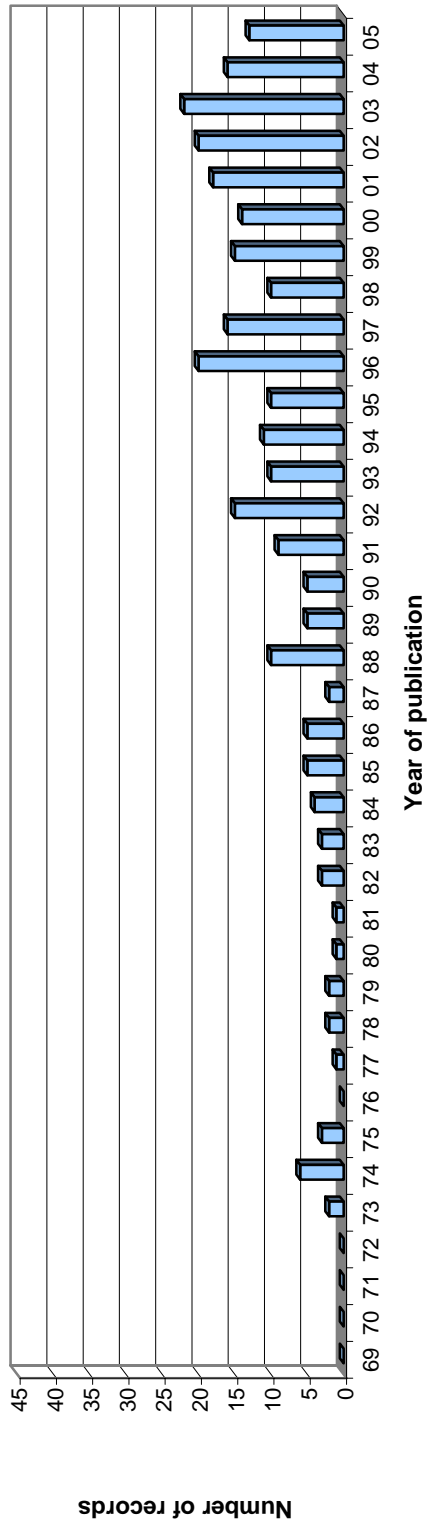


Figure 6 (continued).

Geology



Journal of Geophysical Research

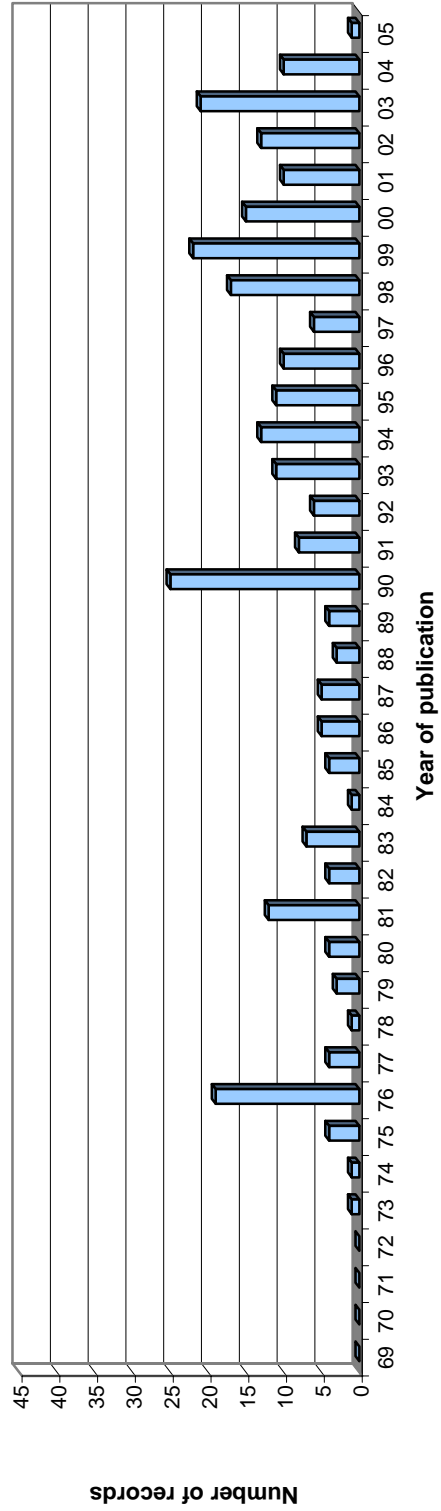
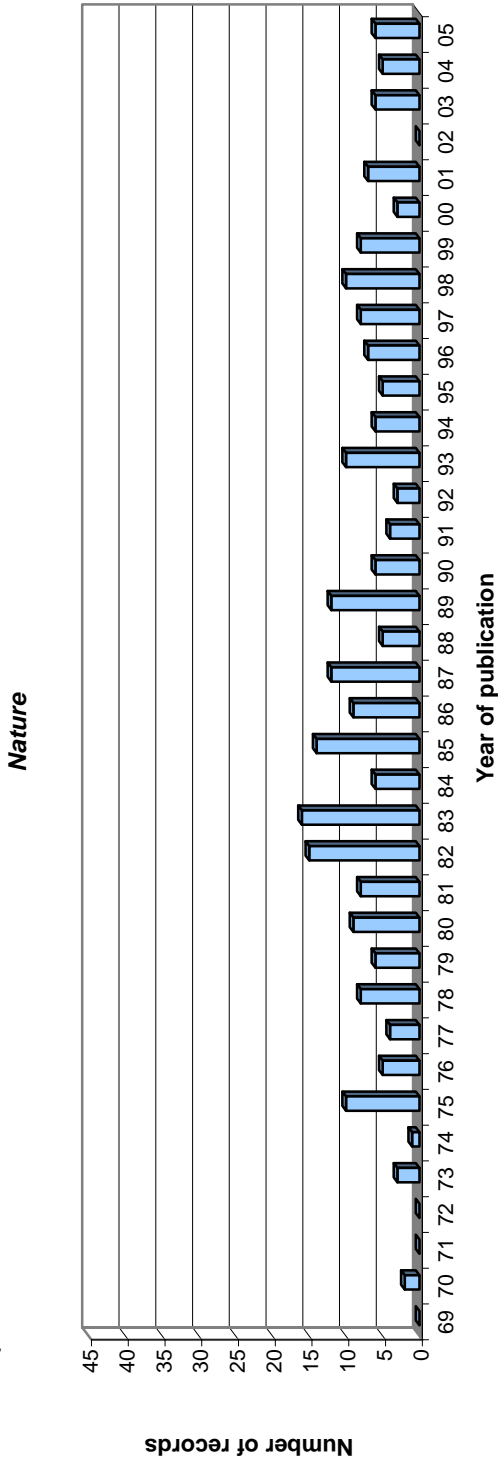


Figure 6 (continued).



Paleoceanography

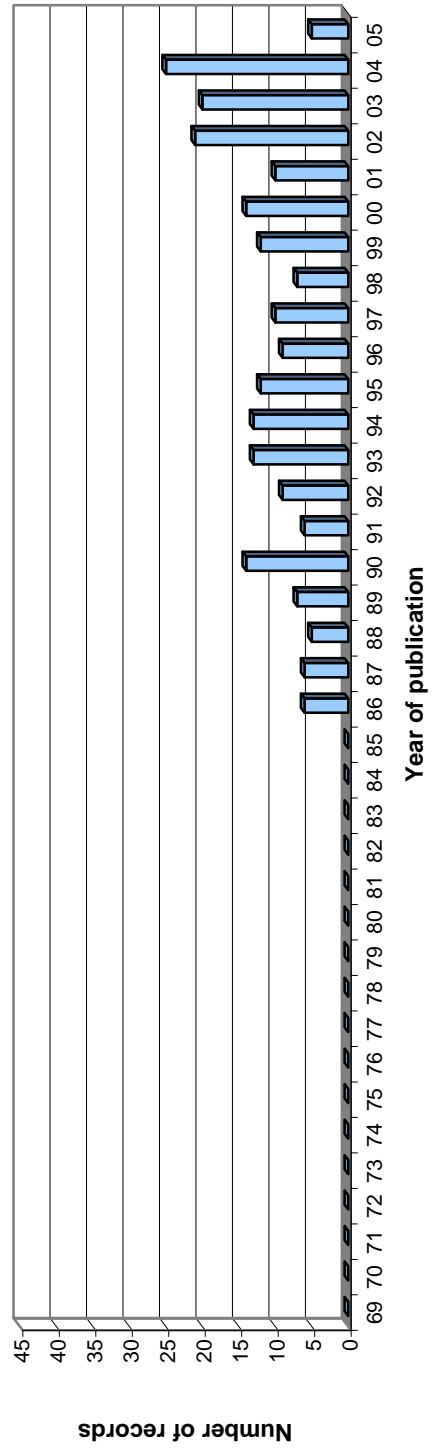
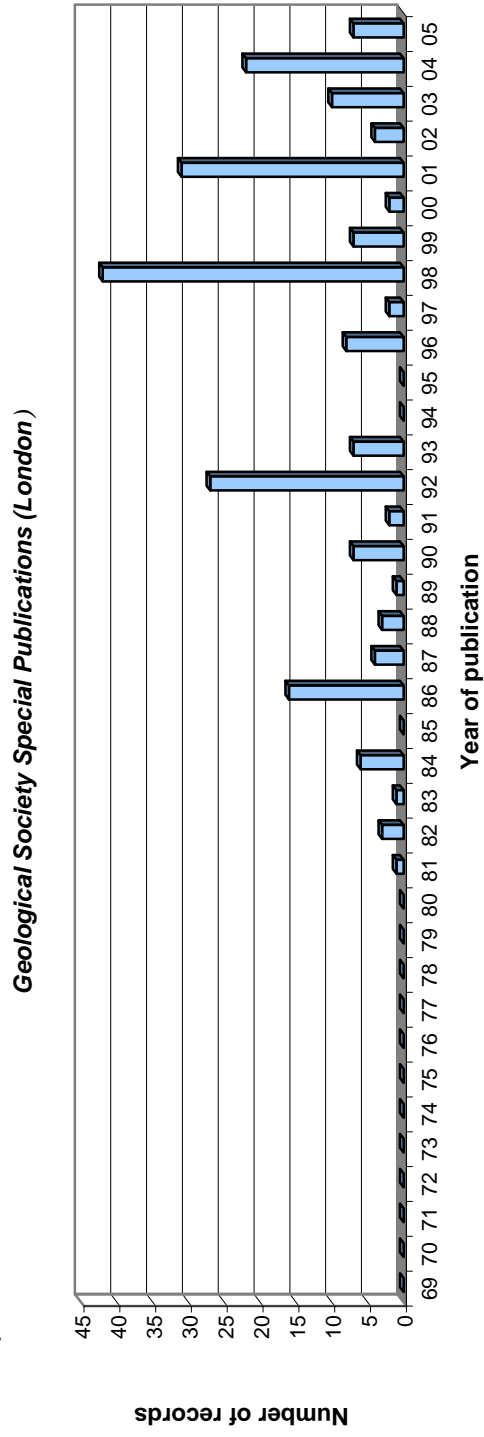


Figure 6 (continued).



Palaeogeography, Palaeoclimatology, Palaeoecology

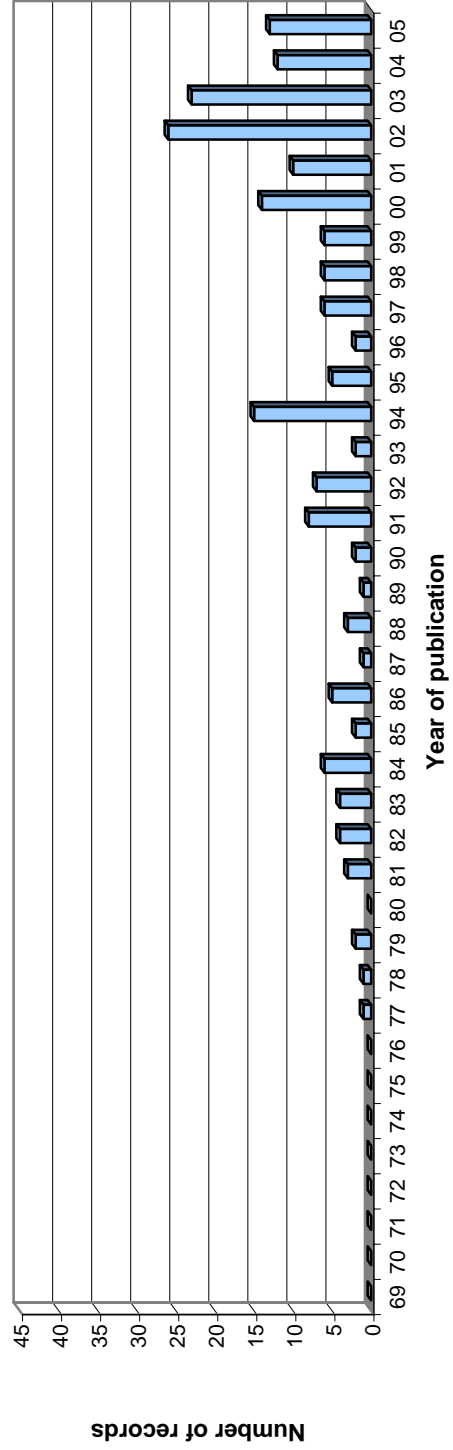
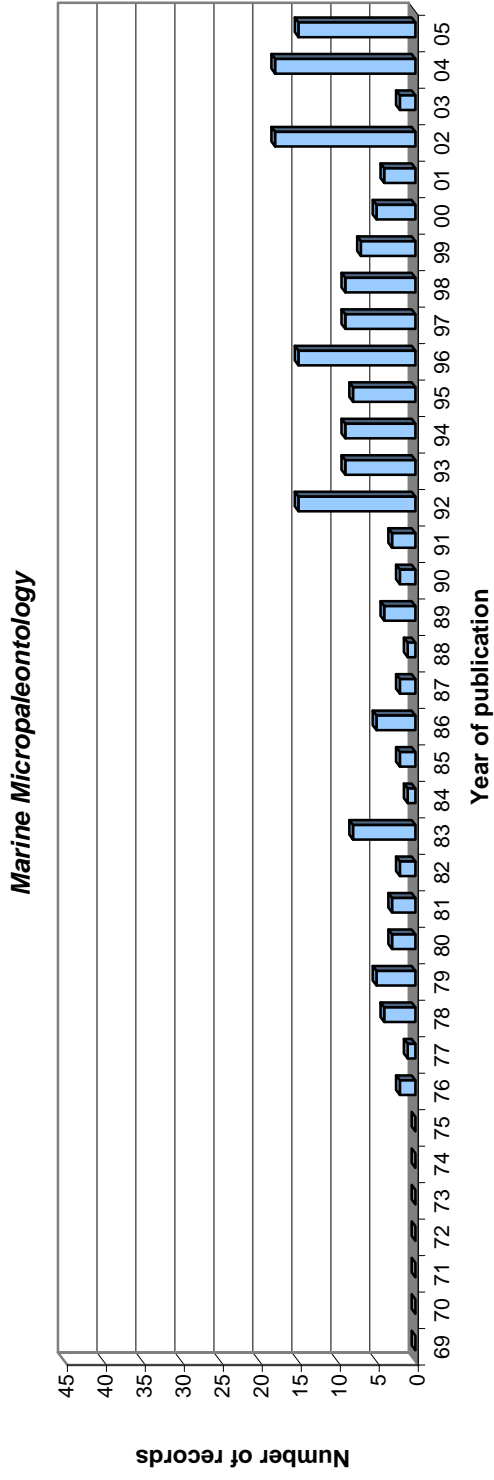


Figure 6 (continued).



Science

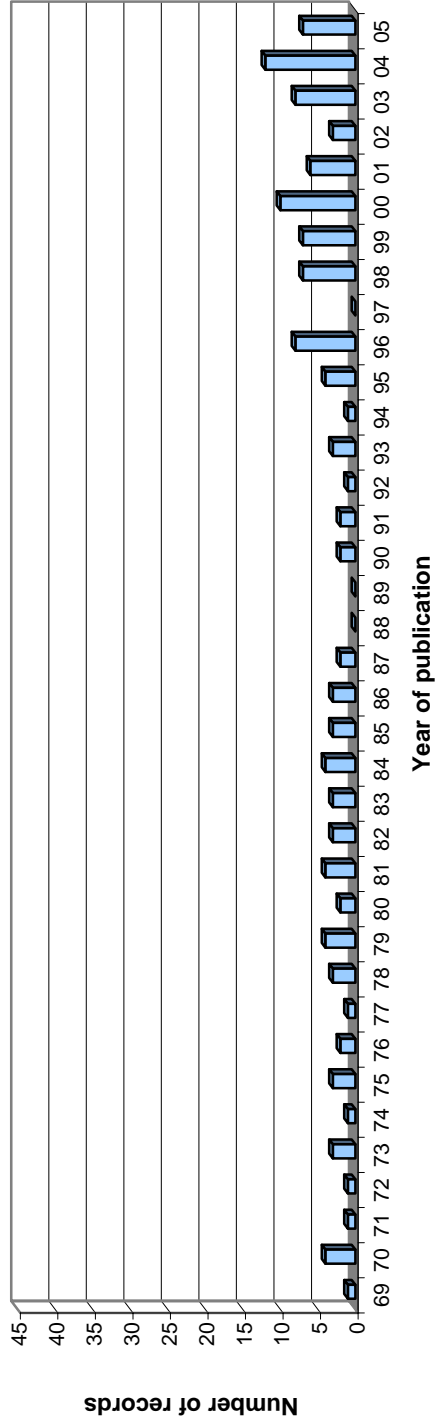
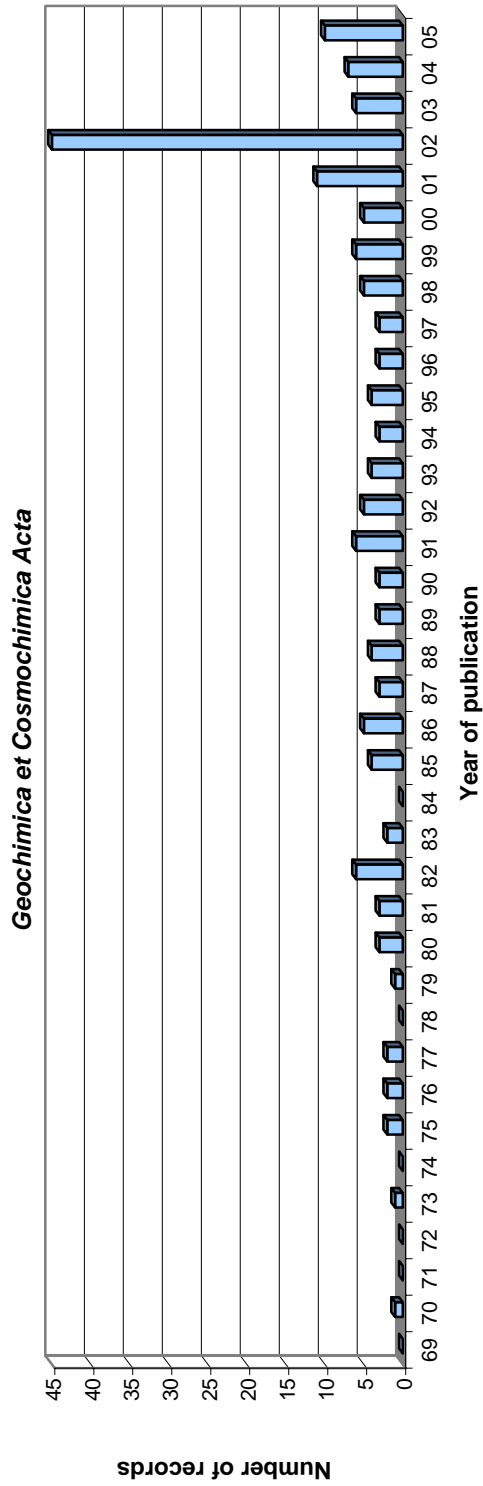


Figure 6 (continued).



Geological Society of America Bulletin

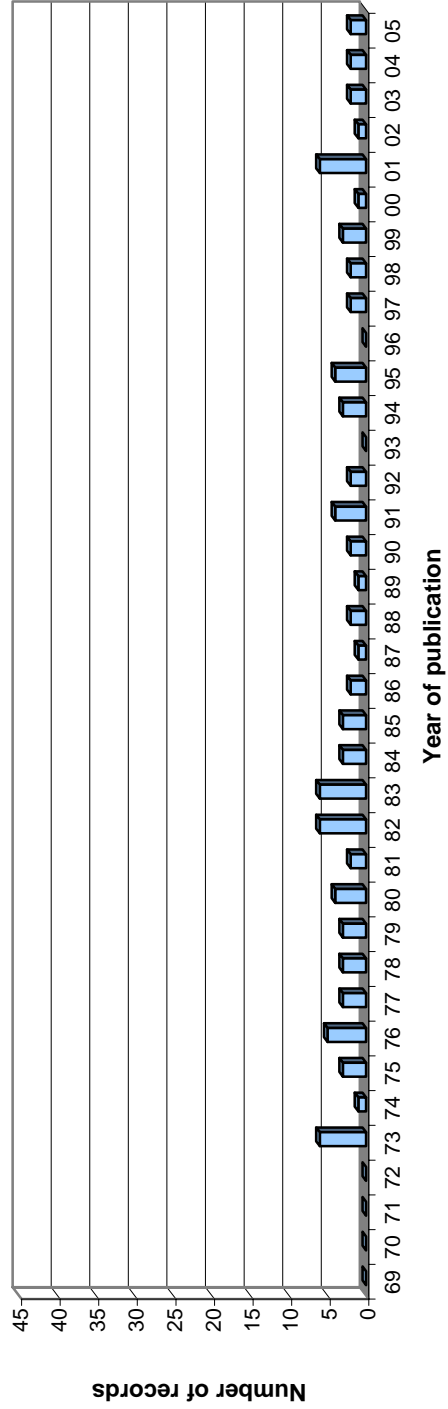


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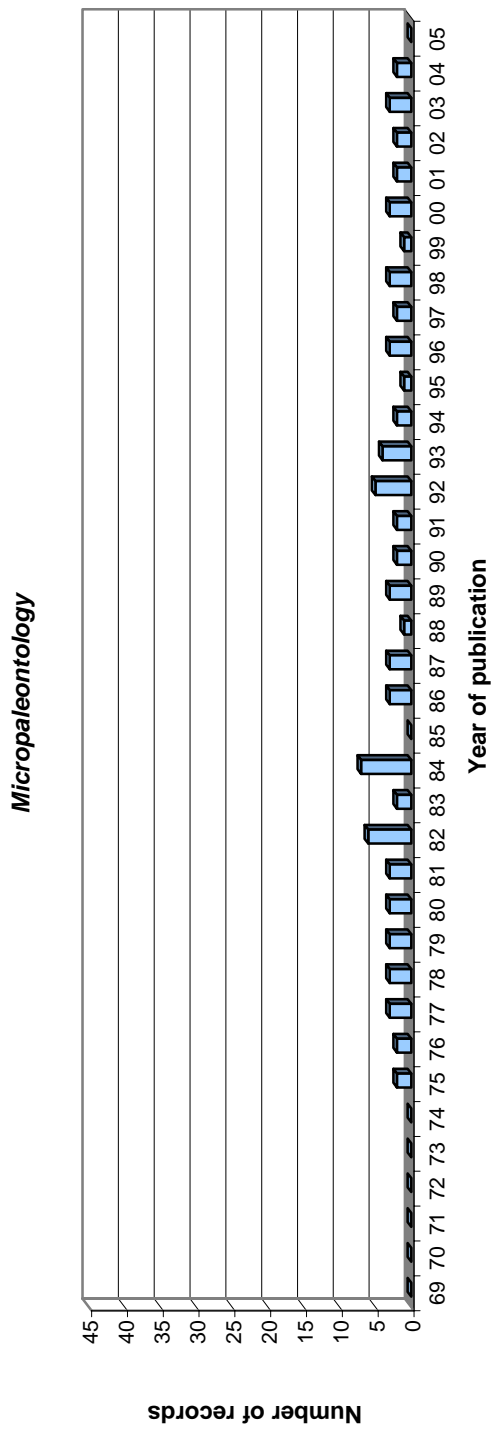
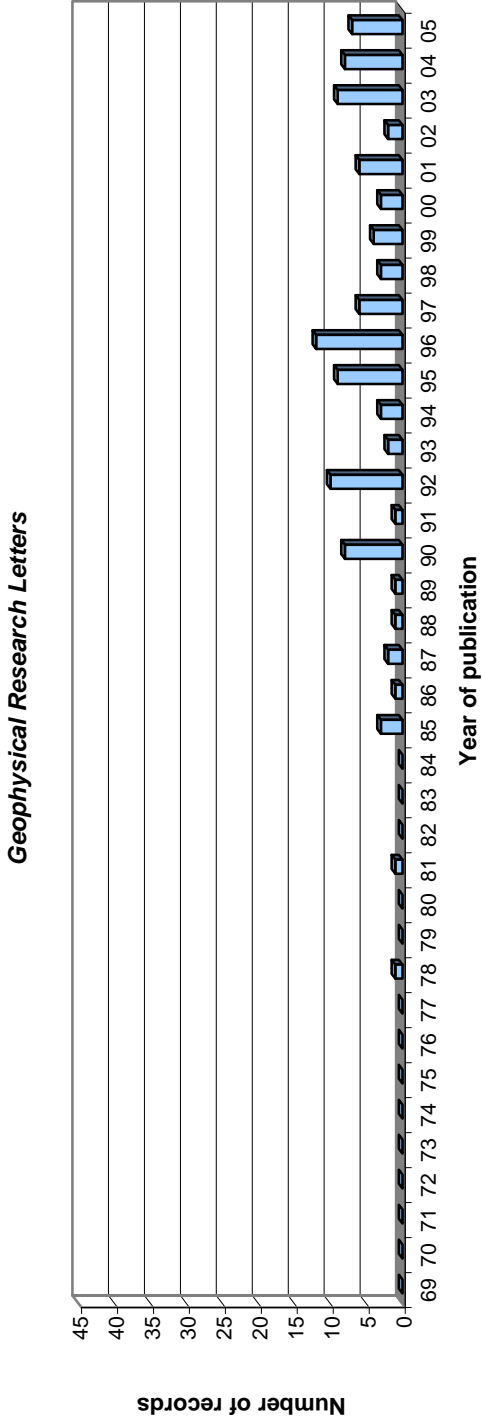
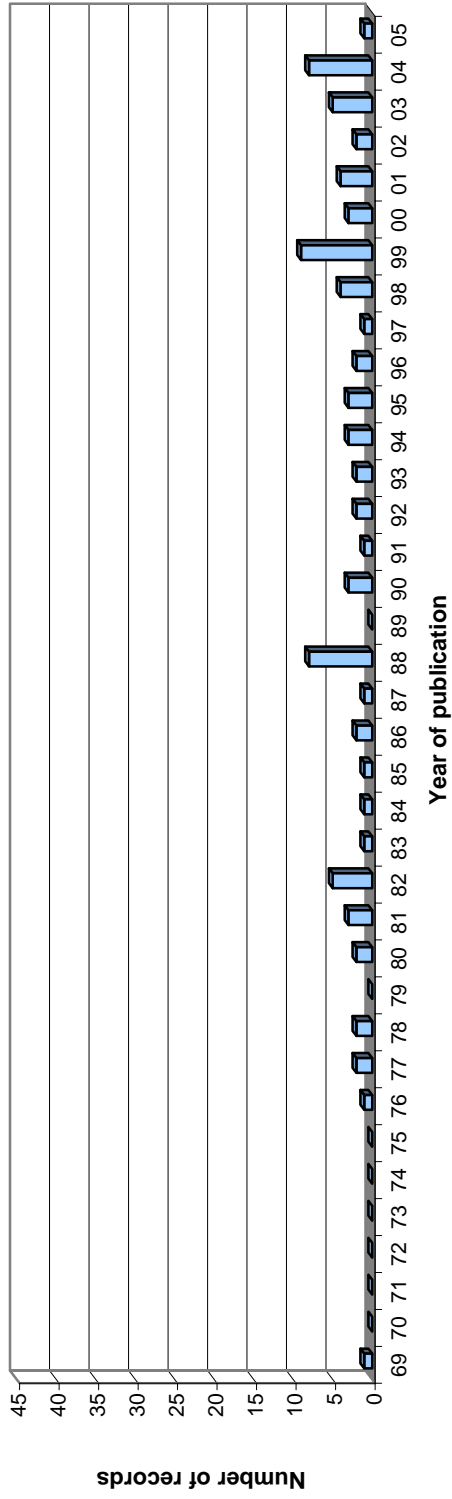


Figure 6 (continued).

Chemical Geology



Comptes Rendus de l'Academie des Sciences, Serie 2

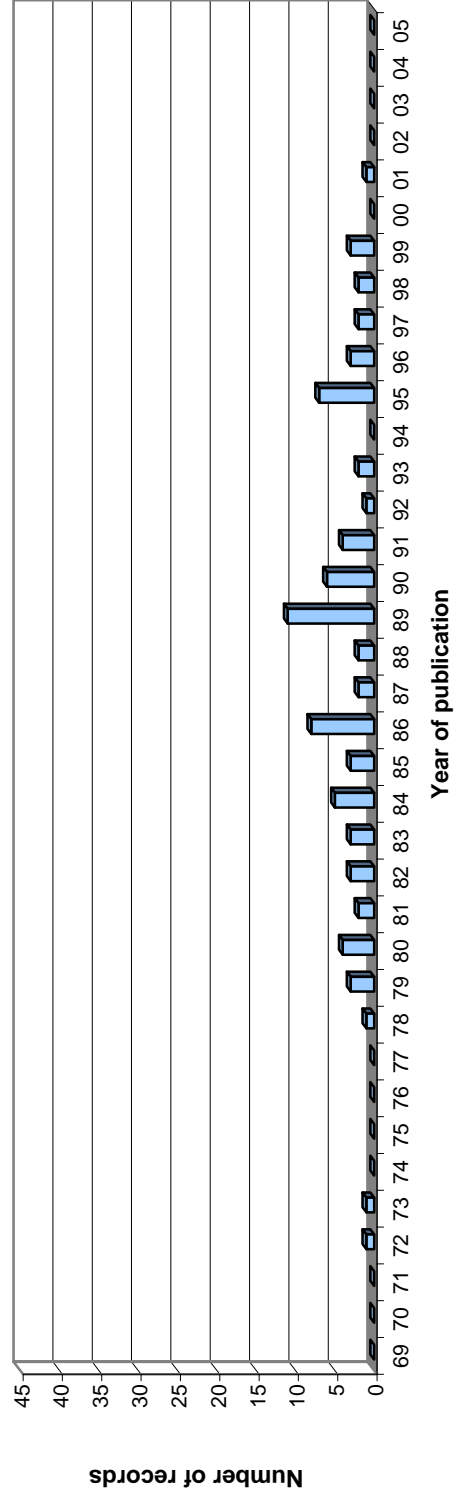


Figure 6 (continued).

Bulletin de la Societe Geologique de France

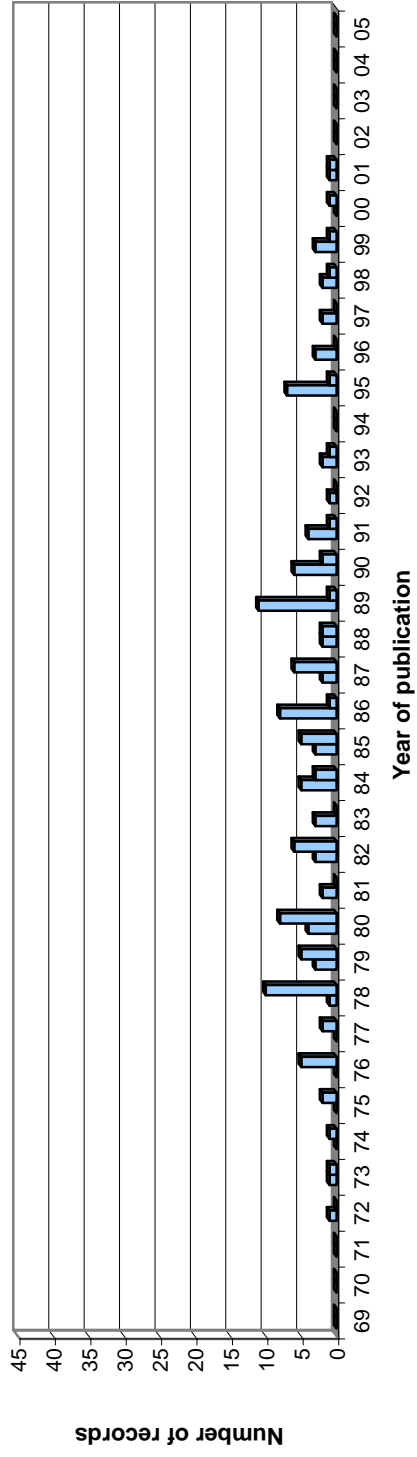
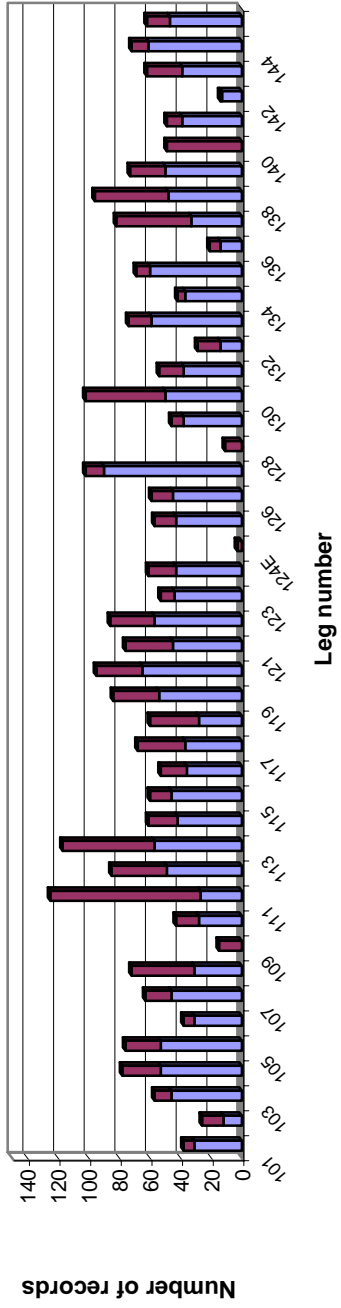
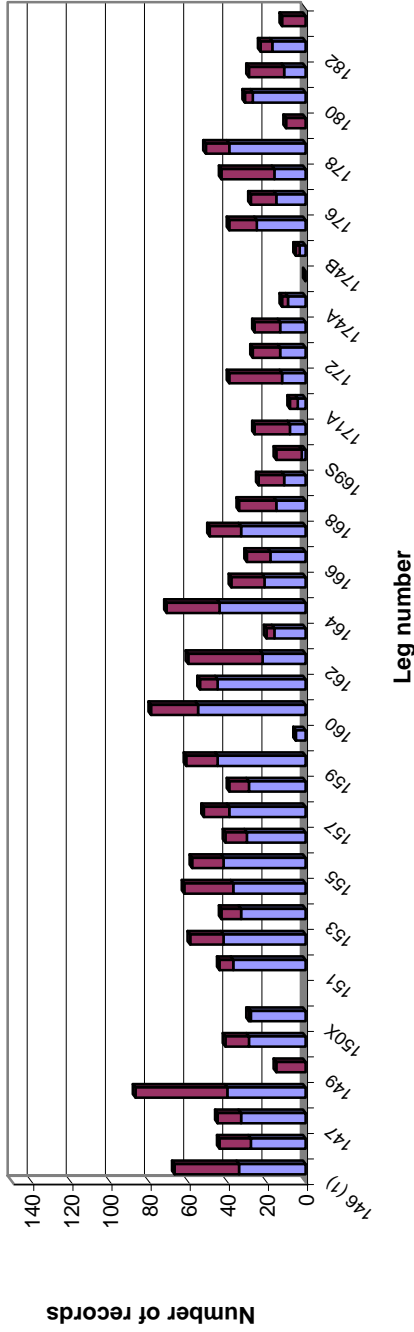


Figure 7. Number of papers published in the ODP *Proceedings* volumes vs. number of papers published in nonprogram serial publications for each ODP leg.

Proceedings vs. serial citations for ODP Legs 101–145



Proceedings vs. serial citations for ODP Legs 146–183



Proceedings vs. serial citations for ODP Legs 184–210

