

2008 OCEAN DRILLING CITATION REPORT

**Covering Citations Related to the
Deep Sea Drilling Project, Ocean Drilling Program,
and Integrated Ocean Drilling Program
from GeoRef Citations
Indexed by the
American Geological Institute
from 1969 through 2007**

Produced by

**Integrated Ocean Drilling Program
Publication Services**

September 2008

OVERVIEW OF THE OCEAN DRILLING CITATION DATABASE

The Ocean Drilling Citation Database, which in February 2008 contained 23,814 citation records related to the Deep Sea Drilling Project (DSDP), Ocean Drilling Program (ODP), and Integrated Ocean Drilling Program (IODP), is produced by the American Geological Institute (AGI) in collaboration with the IODP U.S. Implementing Organization (USIO). Compilation of the Ocean Drilling Citation Database began in 1999, and it has been online since August 2002. The first citation records related to IODP were included in the database in 2006.

The Ocean Drilling Citation Database is a subset of AGI's GeoRef database. To generate the GeoRef database, AGI indexes and records citation data from approximately 3,890 international and domestic publications. AGI obtains citation information from international data-exchange partners in Australia, Canada, China, Finland, Germany, Hungary, New Zealand, Poland, Russia, Spain, and the United Kingdom. AGI also has arrangements to acquire metadata with many publishers, including Elsevier, the American Association for the Advancement of Science, Copernicus, Wiley, and most of the Geoscience World publishers. In addition, IODP Publication Services notifies AGI when Program publications are released.

Ocean drilling publications indexed by AGI are categorized into three groups: "serials," "abstracts and meetings," and "miscellaneous." Serial records are drawn from any periodically produced analytic or monographic journal or report, especially those that are 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*). Citations in the abstracts and meetings category include books, reports, serial conference proceedings, monographs, maps, and abstracts that are produced as the result of a meeting or conference, including those published in serial publications but not presented at meetings or conferences (e.g., *Abstracts with Programs—Geological Society of America*; *Eos*, *Transactions of the American Geophysical Union*, etc.). Citations in the miscellaneous category include maps, videos, books, monographs, and theses. A delay of months may exist between the date a new publication is published and the date its corresponding record is entered into the GeoRef database, depending on the source from which AGI acquires its information. There is no guarantee that all publication venues for Program (DSDP, ODP, and IODP) research are included, but scientific publications throughout the world are represented.

AGI creates the Ocean Drilling Citation Database by using a series of keywords to extract citation records related to DSDP, ODP, and IODP research from the GeoRef database. The Ocean Drilling Citation Database resides on the AGI server (<http://odp.georef.org/dbtw-wpd/qbeodp.htm>) and is updated weekly from the GeoRef database. Users can also access the database via the USIO Web site (<http://iodp.tamu.edu/publications/citations/database.html>) and may download data into common bibliographic software.

ANNUAL OCEAN DRILLING CITATION REPORT

A review of the records in the Ocean Drilling Citation Database can provide information on how Program-related research is disseminated into the scientific community through publications. Beginning in 1999, the Publication Services Department at ODP and, since 2004, the IODP Publication Services Department has produced annual studies of the Ocean Drilling Citation Database. The results of these studies have been included in panel reports and used to track Program publication trends and provide individual reports to member countries.

Documentation of statistics by country is based on author affiliation (institutions and sponsoring countries of contributing authors). Approximately 9% of the records in the Ocean Drilling Citation Database have no affiliation listed because AGI did not record affiliation information for records published before 1975. In addition, many records lack such information simply because some publication venues did not require it in the past. 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.

Data collected for the annual Ocean Drilling Citation Report can be divided into two main categories: Program and non-Program. Program citations include publications produced and published directly by DSDP, ODP, or IODP. These Program publications include but are not limited to the *Initial Reports of the Deep Sea Drilling Project*, *Proceedings of the Ocean Drilling Program*, *Proceedings of the Integrated Ocean Drilling Program*, and the report and technical note series from each Program. The *JOIDES Journal* and *Scientific Drilling* publications are excluded from this study; however, records from these publications are included in the total number of citation records given above. Non-Program records include DSDP-, ODP-, and IODP-related citations for serials, abstracts and meetings, and miscellaneous categories as defined above. Since 1999, non-Program serial publications that have published the largest number of DSDP and ODP research studies include *Earth and Planetary Science Letters*; *Marine Geology*; *Geology*; *Journal of Geophysical Research*; *Paleoceanography*; *Nature*; *Geological Society of London*; *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*; *Marine Micropaleontology*; *Geochimica et Cosmochimica Acta*; *Science*; *Geochemical Research Letters*; and *Geophysical Monograph*.

ANNUAL UPDATES

The Ocean Drilling Citation Report is updated annually 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 the end of that fiscal year. IODP Publication Services produces the report using a CD-ROM copy of the database provided annually by AGI.

IODP funding agencies, implementing organizations, program management offices, or individual member countries may request customized reports (contact CitationStats@iodp.tamu.edu).

THE 2008 STUDY

The 2008 Ocean Drilling Citation Database CD-ROM contains 23,431 citation records comprising 38% Program and 62% non-Program citations, percentages which have remained fairly consistent annually since 1999 (**Figs. 1, 2**).

The focus of much of the annual study is on non-Program publications, with an emphasis on peer-reviewed serial publications. Authors from 93 countries have contributed to non-Program publications in all citation record categories (serials, abstracts and meetings, and miscellaneous) (**Table 1**). Of special interest are the approximately 950 non-Program serial publications to which authors affiliated with Program member countries have contributed Program-related research. Because scientists may be affiliated with more than one institution or country over time, this citation report is based on the country affiliation of the first author at the time of publication of the research. Some of these countries (e.g., the Soviet Union [USSR], Czechoslovakia, etc.) have divided into new geographic and governmental entities since the inception of the Ocean Drilling Citation database; the data reflect the current political boundaries.

The 2008 CD-ROM includes records of 14,870 non-Program publications whose first author was affiliated with a Program member country at the time of publication. Authors from countries that were members of IODP as of February 2008 account for 11,880 publications (**Table 2**). Of these, 6,703 (~56%) were first-authored by authors from the United States.

IODP Records

IODP expedition results are published in the *Proceedings of the Integrated Ocean Drilling Program*, and postexpedition research is published in two forms: data reports are published in the *Proceedings of the Integrated Ocean Drilling Program* volumes, and research results are published in non-Program peer-reviewed journals (**Fig. 3**). Syntheses papers can be published in either venue. Because of the delay between the publication date and the date its corresponding record is entered into the GeoRef database, many IODP-related non-Program records published in 2007 were not included in the 2008 CD-ROM. These data are being added to GeoRef and will be better represented in the next annual study.

Legacy Records

Throughout ODP, Program publication productivity was generally tracked on a year-by-year basis rather than a leg-by-leg scheme (**Fig. 4**). However, we also reviewed ODP publication data by leg to track whether the ratio of publications in Program versus non-Program venues changed 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*. Although many scientists elected to publish their research results in peer-reviewed journals, the majority elected to publish in the ODP *Proceedings, Scientific Results* volumes through 2007, when ODP Program publications were completed (**Fig. 5**). Research from the most recent ODP legs is still being conducted and will continue to be published in non-Program publications in the years to come.

Table 1. Number of contributions related to DSDP, ODP, and IODP to non-Program publications by authors from each country represented in the Ocean Drilling Citation Database.

Country	Numbers of papers contributed	Number first-authored	Country	Numbers of papers contributed	Number first-authored
Algeria	1	1	Indonesia	6	3
Argentina	28	23	Iran	2	1
Australia	491	259	Ireland	14	5
Austria	32	12	Israel	31	20
Azerbaijan	1	0	Italy	511	260
Barbados	2	1	Jamaica	6	2
Belarus	1	0	Japan	886	577
Belgium	82	25	Lebanon	1	0
Botswana	1	1	Malaysia	1	1
Brazil	35	21	Malta	2	2
Brunei	4	0	Mexico	47	20
Bulgaria	3	3	Morocco	4	2
Canada	964	574	Namibia	1	0
Chile	13	2	Netherlands	301	153
Colombia	17	8	New Caledonia	4	2
Costa Rica	3	1	New Zealand	200	140
Cuba	6	0	Nicaragua	3	0
Cyprus	6	0	Nigeria	4	3
Czech Rep.	7	1	Norway	270	145
Czechoslovakia	3	1	Oman	3	1
Denmark/Greenland	120	54	Pakistan	3	0
Dominican Republic	1	0	Panama	2	1
Ecuador	1	0	Papua New Guinea	5	0
Egypt	3	2	P.R. China	191	120
Estonia	1	1	Peru	3	0
Ethiopia	3	0	Philippines	8	3
Fiji	1	0	Poland	16	8
Finland	19	13	Portugal	42	12
France	1252	737	Puerto Rico	8	3
French Polynesia	2	0	Romania	5	0
Germany	1708	1109	Russian Federation	164	124
Greece	9	7	Saudi Arabia	1	0
Hungary	7	6	Senegal	1	0
Iceland	13	5	Seychelles	1	1
India	145	122	Slovakia/Slovak Republic	2	1

Notes: These totals include only citations for which author affiliation data was available (approximately 21,700 of 23,400 records). Numbers include serial publications, abstracts/meeting publications, and miscellaneous publications. Serials = analytic or monographic journals or reports; abstracts and meetings = books, reports, conference proceedings, monographs, maps, and published abstracts that are produced as a result of a meeting or conference; miscellaneous = other maps, videos, books, monographs, and theses. Data in bold print represent IODP member countries as of February 2008. Records historically combined as part of Czechoslovakian and USSR totals are now attributed to the new geographic/political entities into which they have been divided. (Continued on next page.)

Table 1 (continued).

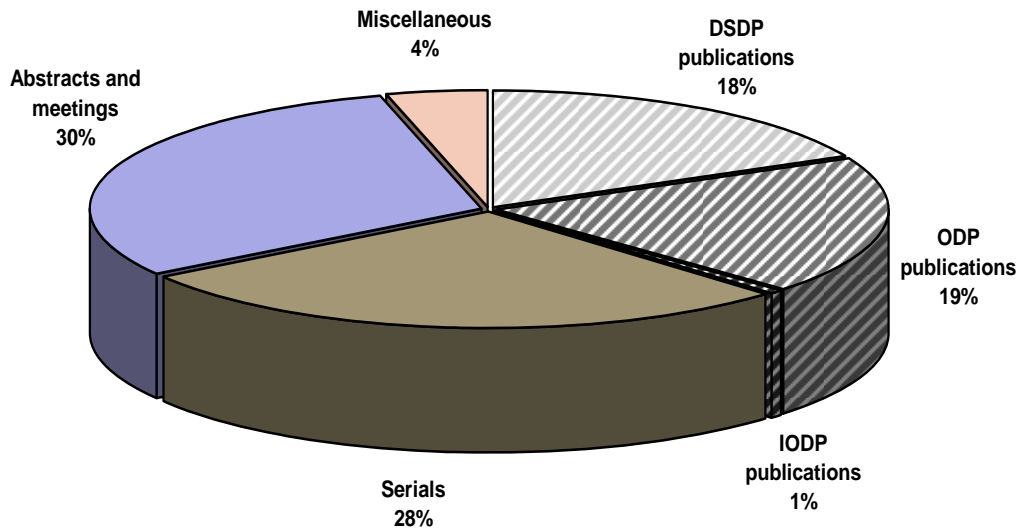
Country	Numbers of papers contributed	Number first-authored	Country	Numbers of papers contributed	Number first-authored
Slovenia	3	0	Trinidad/Tobago	2	0
Solomon Islands	2	1	Tunisia	4	3
South Africa	28	11	Turkey	12	5
South Korea	39	24	Venezuela	2	2
Spain	174	88	Vietnam	1	0
Sri Lanka	1	0	Ukraine	3	16
Sweden	203	107	United Kingdom	1802	1015
Switzerland	289	142	United Arab Emirates	3	2
Taiwan	42	27	USA	7967	6703
Tanzania	6	3	USSR	142	123
Thailand	2	1	Yemen	1	0
Tonga	2	0			

Table 2. Number of contributions related to DSDP, ODP, and IODP to non-Program publications first-authored by authors affiliated with IODP member countries.

	Serials	Abstracts/ meetings	Miscellaneous	Total
CDEX (Japan)	342	202	33	577
ESO	2188	2183	85	4456
Austria	3	8	1	12
Belgium	12	13	0	25
Canada	216	353	5	574
Denmark	29	25	0	54
Finland	3	10	0	13
France	383	336	18	737
Germany	488	595	26	1109
Iceland	4	1	0	5
Ireland	2	3	0	5
Italy	130	129	1	260
Netherlands	101	51	1	153
Norway	84	58	3	145
Portugal	2	8	2	12
Spain	50	38	0	88
Sweden	61	44	2	107
Switzerland	68	70	4	142
U.K.	552	441	22	1015
USIO (USA)	2784	3778	141	6703
P.R. China	95	25	0	120
South Korea	18	6	0	24

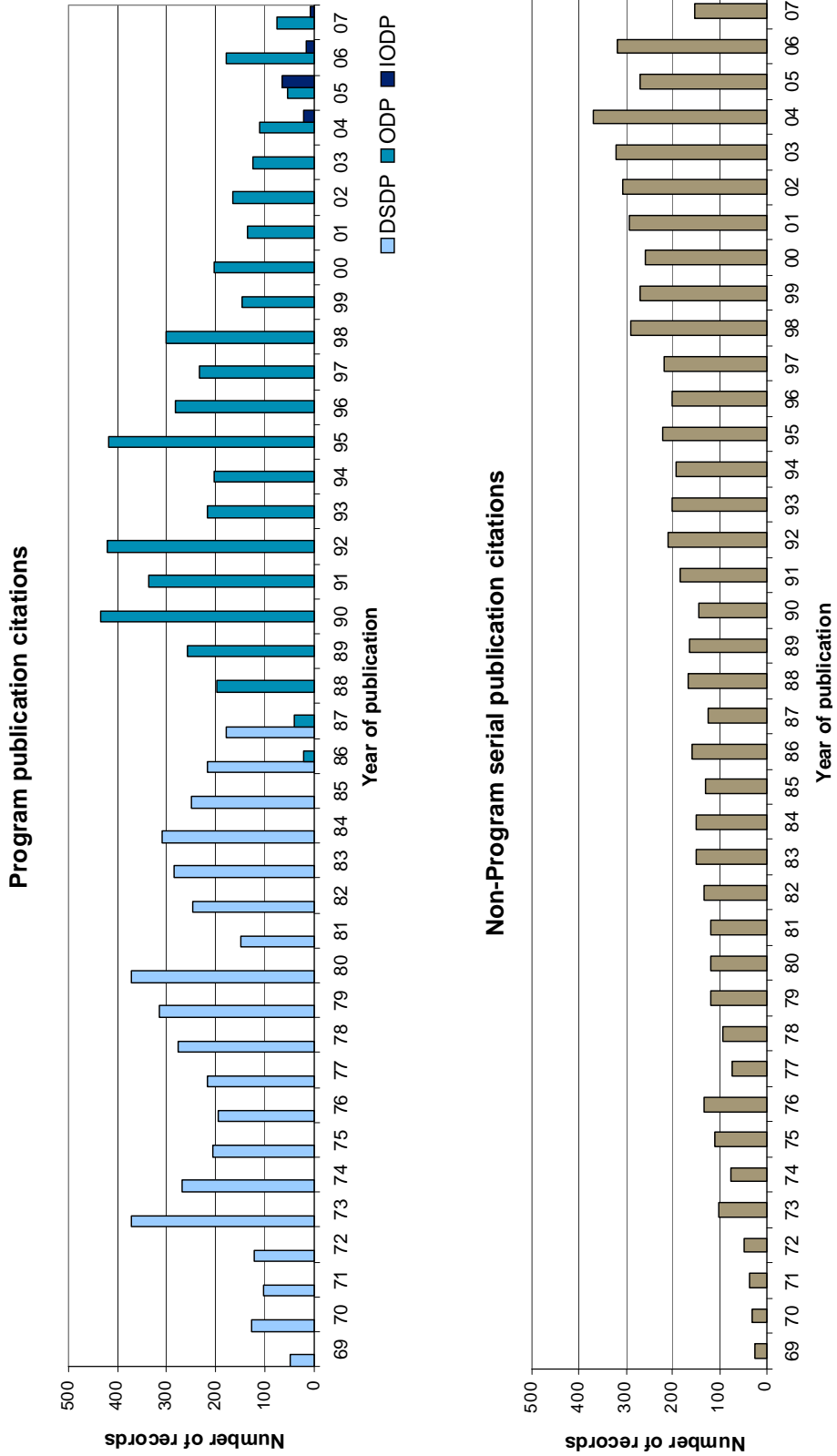
Notes: CDEX = Center for Deep Earth Exploration (Japanese implementing organization, funded by the Ministry of Education, Culture, Sports, Science, and Technology, Japan); ESO = European implementing organization (funded by European Consortium for Ocean Research Drilling); USIO = United States Implementing Organization (funded by U.S. National Science Foundation). P.R. China participation is funded by Ministry of Science and Technology, People's Republic of China, and South Korea participation is funded by Korea Institute of Geoscience and Mineral Resources. Serials = analytic or monographic journals or reports; abstracts and meetings = books, reports, conference proceedings, monographs, maps, and published abstracts that are produced as a result of a meeting or conference; miscellaneous = other maps, videos, books, monographs, and theses.

Figure 1. Overview of Program and non-Program records in the Ocean Drilling Citation Database.



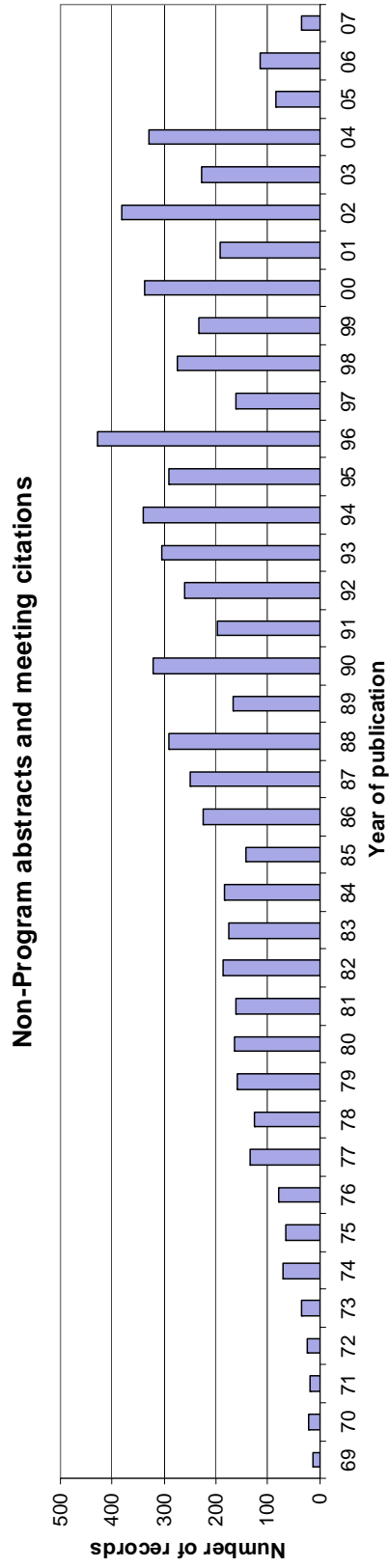
Notes: Serials = analytic or monographic journals or reports; abstracts and meetings = books, reports, conference proceedings, monographs, maps, and published abstracts that are produced as a result of a meeting or conference; miscellaneous = other maps, videos, books, monographs, and theses; striped pattern = Program (DSDP, ODP, and IODP) publications.

Figure 2. Annual breakdown of Ocean Drilling Citation Database records (from 1969 through 2007).



Notes: Program publications = publications produced and published directly by DSDP, ODP, or IODP. Serials = analytic or monographic journals or reports; abstracts and meetings = books, reports, conference proceedings, monographs, maps, and published abstracts that are produced as a result of a meeting or conference; miscellaneous = other maps, videos, books, monographs, and theses. (Continued on next page.)

Figure 2 (continued).



Non-Program miscellaneous citations

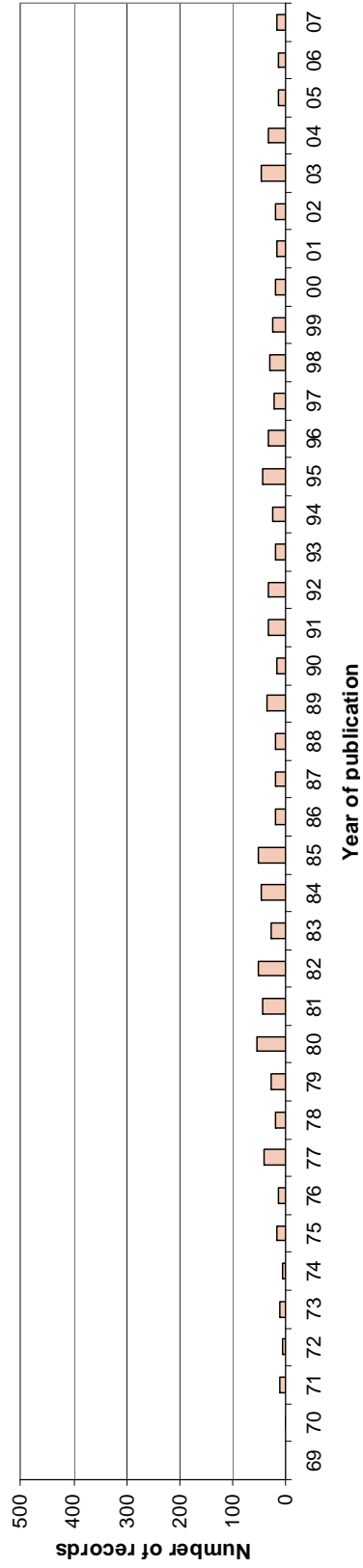
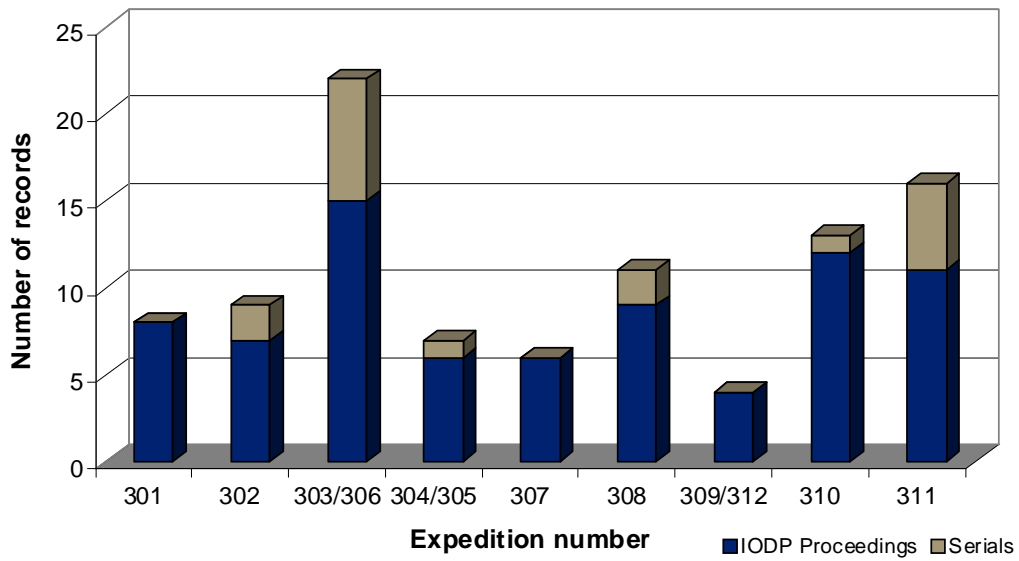
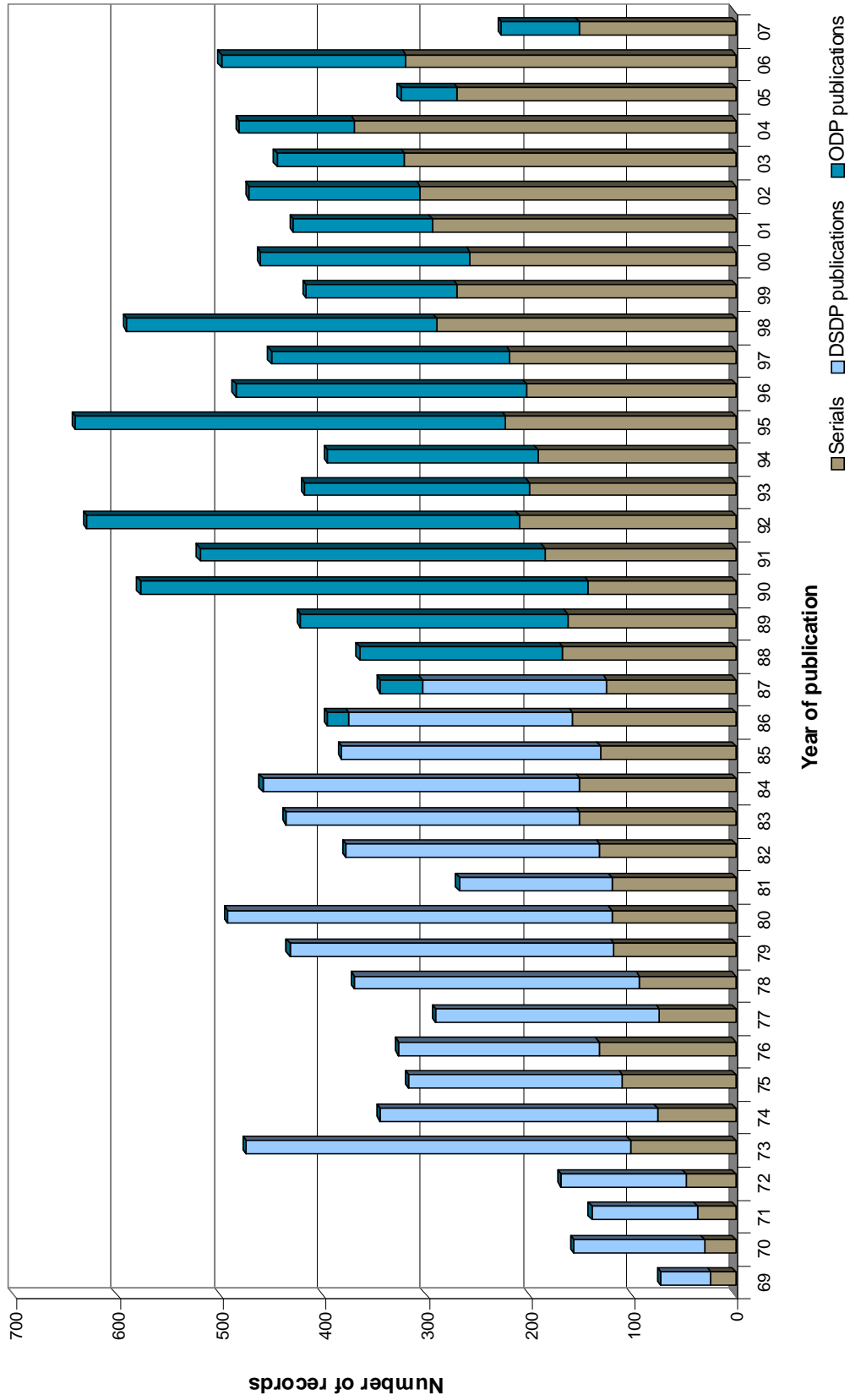


Figure 3. Number of IODP *Proceedings* records and number of IODP-affiliated records from non-Program serial publications for each IODP expedition.



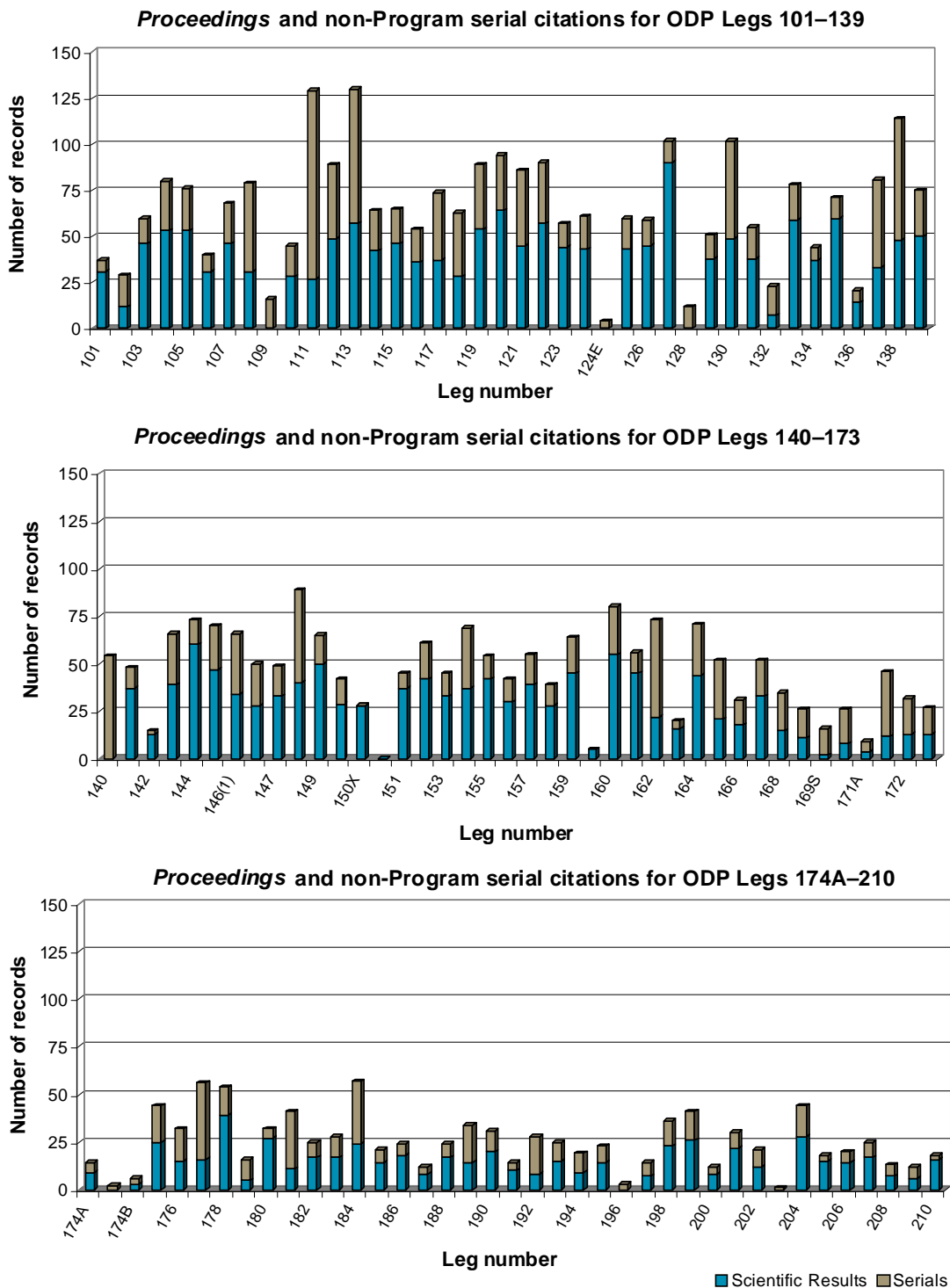
Note: Serials = analytic or monographic journals or reports.

Figure 4. Number of Program records and non-Program serial records related to DSDP and ODP per year.



Notes: Program publications = publications produced and published directly by DSDP or ODP, Serials = analytic or monographic journals or reports.

Figure 5. Number of ODP *Proceedings*, *Scientific Results* records and number of ODP-affiliated records from non-Program serial publications for each ODP leg.



Note: Serials = analytic or monographic journals or reports.