

Journal Citation Reports[®]



The Journal Evaluation Tool

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Introduction to JCR

Journal Citation Reports (JCR) is a unique multidisciplinary journal evaluation tool. *Journal Citation Reports on the Web* is the only journal evaluation resource that provides statistical information based on citation data. By compiling cited references, *JCR* helps to measure research influence and impact at the journal level, and shows the relationships between citing and cited journals. It presents quantifiable statistical data that provides a systematic, objective way to determine the relative importance of journals within their subject categories.

JCR is one of the many databases available via the *ISI Web of Knowledge*. Go to <http://isiknowledge.com> to view what your institution subscribes to.

It should be noted that only journals that have been indexed in *Web of Science* and/or *Current Contents Connect* for 3 complete calendar years will appear in the *Journal Citation Reports* database.

	Science Edition	Social Sciences Edition
Frequency:	Annual	Annual
Number of Journals Covered in 2004:	5,968	1,712
Number of Subject Categories in 2004:	171	55

Uses of the JCR

Data included for each journal in the *JCR* include measures of journal impact (Impact Factor) and how quickly articles are cited after publication (Immediacy Index), as well as information about citation patterns and general source data.

The *JCR* is a tool and as a tool it should be used with thought and care.

The data in *JCR Web* are used for numerous practical applications:

- | | |
|---|---|
| Librarians and Information Professionals | <ul style="list-style-type: none"> • Develop and manage journal collections <ul style="list-style-type: none"> – Support selection or removal of journals from their collections – Assist in making archiving decisions |
| Publishers and editors | <ul style="list-style-type: none"> • Determine the influence of journals in the marketplace • Review editorial decisions |
| Authors | <ul style="list-style-type: none"> • Identify the most appropriate, influential journals in which to publish • Confirm the status of journals in which they have published |
| Professors and students | <ul style="list-style-type: none"> • Discover where to find the current reading list in their respective fields |
| Information analysts | <ul style="list-style-type: none"> • Track bibliometric trends • Study citation patterns |

Personalization

Registration

The benefits of registration are many. When you register you are allowed to use the features of the Web of Knowledge to a much greater extent. You will be able to create and save email alerts such as

The alerts that you can create are dependant on your institution's subscription.

Alerts are not available for Journal Citation Reports.

The screenshot shows the ISI Web of Knowledge homepage. At the top, there is a navigation bar with the logo, a dropdown menu for "Products & Features", and buttons for "HOME" and "LOG OUT". Below the navigation bar, a welcome message reads: "Welcome to ISI Web of Knowledge... transforming research. Gain insight into search results. Click on Analyze and discover trends. Comments or ideas? Please click here to send feedback to the development staff." There are links for "More information", "Notices", "Help", and "Tutorial".

The main content area is divided into several sections:

- CrossSearch:** A search bar with the text "Enter a topic" and a "SEARCH" button. Below it, an example search term "quark* and spin" is shown.
- Searchable Database Products:** A list of products including "Web of Science", "Current Contents Connect", "ISI Proceedings", and "Derwent Innovations Index", each with a "GO" button.
- Analytical Tools:** A list of tools including "Journal Citation Reports" and "Essential Science Indicators", each with a "GO" button.
- Other Resources:** A list of resources including "ISI HighlyCited.com" and "www.thomsonis.com", each with a "GO" button.

On the right side, there is a "Please register for more features" prompt with a "click here" button. Below this, there is a "Sign In" section with fields for "E-mail Address" and "Password", and buttons for "Forgot your password" and "SIGN IN". There are also links for "Citation Alerts" and "My Journal List".

A callout box with a black border and white background is positioned over the bottom right of the screenshot. It contains the text: "By Registering you get additional functionality that would not be available to you otherwise." An arrow points from the callout box to the "Please register for more features" prompt.

Possibly the best advantage of Alerting is that you reserve space for yourself on a Thomson Scientific server. This means that wherever you log in from, if you are within your institution's authorized IP range, your searches will follow you. You will not need to remember where you saved them.

The screenshot shows the "New User Registration" form on the ISI Web of Knowledge website. The form is titled "New User Registration" and includes the following sections:

- Instructions:** "Enter your e-mail address, password, and name in the form and click 'Submit Registration.'" and "Click 'Help' for more information and for the benefits of registering." There is also a note: "If you have already registered, please go to the ISI Web of Knowledge Home page and sign in." and a link to the "Privacy Statement".
- 1) Enter your E-mail Address:** A text input field followed by the instruction: "This will be your user ID and used for correspondence. Example: johndoe@company.com". Below it is a "Retype E-mail Address:" field.
- 2) Create a Password:** A text input field followed by the instruction: "6 - 12 alphanumeric characters, no spaces." Below it is a "Retype Password:" field.
- 3) Name:** A text input field followed by the instruction: "To be used only for greeting (optional)."
- Automatic Sign In:** Two radio button options:
 - Sign me in automatically. (Select this if you want to be signed in automatically each time you access ISI Web of Knowledge. This feature uses cookie technology.)
 - I am using a public computer or do not wish to be signed in automatically. (Users of public computers should select this option.)
- Buttons:** "SUBMIT REGISTRATION" and "CANCEL" buttons at the bottom.

Cross Search

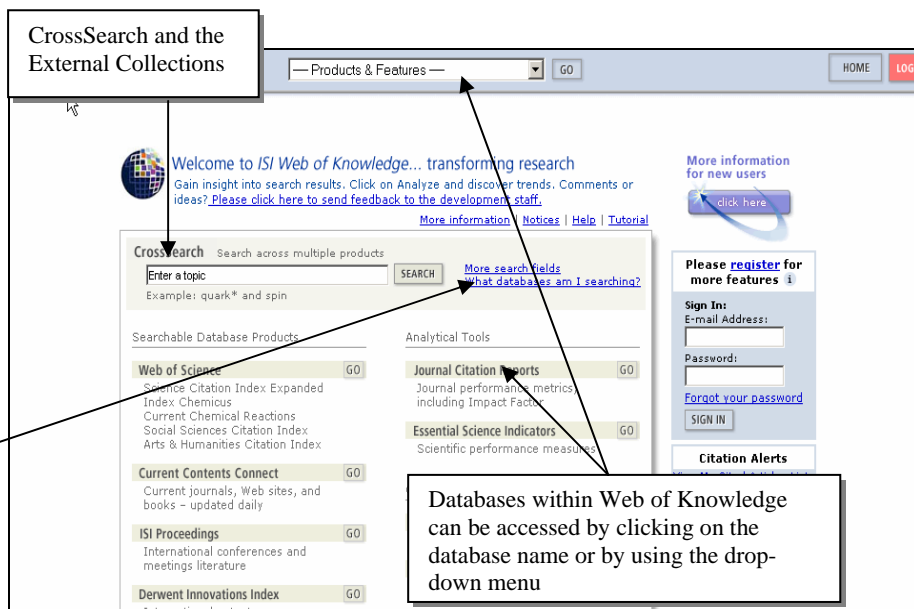
As well as accessing your subscribed databases you will also have access to free of charge databases (External Collection) via Cross Search. These databases can be accessed simultaneously with the subscribed databases.

What databases am I searching?

Biological, Medical & Agricultural Sciences – Agricola, PubMed, and arXiv.org Quantitative Biology archive.

Engineering, Computing & Physical Sciences- AIIA Meeting Papers, arXiv.org e-print archives (Computer Science, Mathematics, Nonlinear Sciences, Physics)

Social & Behavioral Sciences- Popline, The Educator's Reference Desk (Ask Eric)

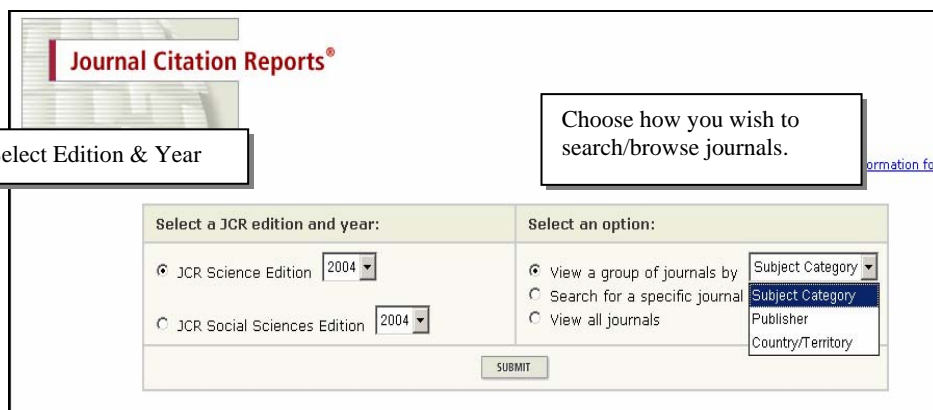


Home Page

From the Home Page you can view

- View All Journals
- Search for a Specific Journal by using Full Journal Title, Abbreviated Journal Title, Title Word or ISSN
- View a group of Journals by Subject Category, Publisher or Country

Allows you to select which edition of JCR you wish to search (*Science or Social Sciences*) and the year of the edition.



View & Search Options

The most common way to view journals in the JCR is to group them by subject category. You may wish to compare information such as Impact Factor and Immediacy Index for journals within a certain subject category.

Select a JCR edition and year:

JCR Science Edition 2004

JCR Social Sciences Edition 2004

Select an option:

View a group of journals by Subject Category

Search for a specific journal

View all journals

SUBMIT

Search Tip

It is advisable that you stay within one *Subject Category* or related subject areas. The reason for this is that different *Subject Categories* have different Citation Cycles. This means that it may take longer for a paper to be cited in one category than another. It is there not wise to compare journals from completely different categories. Multiple categories may be selected by holding down the Control key when clicking each category.

2004 JCR

Subject Category Selection

1) Select one or more categories from the list.

(How to select more than one)

2) Select to view Journal data or aggregate Category data.

View Journal Data - sort by: Journal Title

View Category Data - sort by: Journal Title

SUBMIT

Journal Title

Total Cites

Impact Factor

Immediacy Index

Current Articles

Cited Half-Life

- Sort journals by:
- Journal Title
 - Total Cites
 - Impact Factor
 - Immediacy Index
 - Current Articles
 - Cited Half-Life

You can also choose to Search for a journal or journals by Full Journal Title, Abbreviated Journal Title, Title Word or ISSN

Journal Search

1) Search by:

Full Journal Title

Abbreviated Journal Title

Title Word

ISSN

2) Type search term:

Enter words from journal title or ISSN (view list of full journal titles)

SEARCH

Full Journal Title: Enter JOURNAL OF CELLULAR PHYSIOLOGY or JOURNAL OF CELL* (more examples)

Abbreviated Journal Title: Enter J CELL PHYSIOL or J CELL * (more examples)

Title Word: Enter CELLULAR or CELL* (more examples)

ISSN: Enter 0021-9541 or other ISSN (more examples)

View Summary Display

When you select a Subject Category or associated Subject Categories you will see the results shown on a summary page sorted in the manner that you had originally selected. You can choose to sort by other attributes.

Journal Citation Reports®
2004 JCR Science Edition

Journal Summary List [Journal Title Changes](#)

Journals from: **subject categories OCEANOGRAPHY** [VIEW CATEGORY SUMMARY LIST](#)

Sorted by: **Journal Title** [SORT AGAIN](#)

Journals 1 - 20 [MARK ALL](#) [UPDATE](#) [Journal Title](#) [Total Cites](#) [Impact Factor](#) [Immediacy Index](#) [Current Articles](#) [Cited Half-Life](#)

Page 1 of 3

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to journal information)</i>	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
<input type="checkbox"/>	1	APPL OCEAN RES	0141-1187	262	0.526	0.000	6	9.3
<input type="checkbox"/>	2	ATMOS OCEAN	0705-5900	530	1.021	0.133	15	8.7
<input type="checkbox"/>	3	B MAR SCI	0007-4977	3295	0.859	0.086	81	>10.0
<input type="checkbox"/>	4	CONT SHELF RES	0278-4343	2879	1.431	0.364	132	7.8
<input type="checkbox"/>	5	DEEP-SEA RES PT I	0967-0637	3013	1.975	0.336	116	6.5
<input type="checkbox"/>	6	DEEP-SEA RES PT II	0967-0645	2218	1.537	0.006	175	4.6
<input type="checkbox"/>	7	DYNAM ATMOS OCEANS	0377-0265	481	1.116	0.125	8	8.0

You can Mark All Journals or Selected Journals so that the data can be exported to file.

There is a link to Journal Title Changes which have occurred in the past 2 years. It Shows

- New title(s)
- Superseded title(s)
- Type of change (change, split, merge)
- Year change occurred

The data that you see in this summary display is as follows

Abbreviated Journal Title - This is hyper-text linked to the full record for that journal

ISSN – International Standard Serial Number

Total Cites – The number of times articles in a particular journal have been cited in the JCR edition year.

Impact Factor – An average number of citations a paper over a 3 year period (see page 8)

Immediacy Index – The number of times articles in a journal have been cited in the same year as they have been published (see page 8)

Articles – The number of articles published in the JCR edition year for that journal.

Cited Half Life – The number of years you have to back track to find articles that make up 50% of those articles which have been cited. (see page 9).

Full Record Display

Select a Journal from the Summary Display

<input type="checkbox"/>	3	PALEOCEANOGRAPHY	0883-8305	3902	3.018	0.653	95	7.6
--------------------------	---	----------------------------------	-----------	------	-------	-------	----	-----

You will now see the Full Display

Journal: PALEOCEANOGRAPHY

Mark	Journal Title	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life	Citing Half-life
<input type="checkbox"/>	PALEOCEANOGRAPHY	0883-8305	3902	3.018	0.653	95	7.6	7.9

[Cited Journal](#)
[Citing Journal](#)
[Source Data](#)

Journal Information

Journal Information

Full Journal Title: PALEOCEANOGRAPHY
ISO Abbrev. Title: Paleocceanography
JCR Abbrev. Title: PALEOCEANOGRAPHY
ISSN: 0883-8305
Issues/Year: 6
Language: ENGLISH
Journal Country/Territory: UNITED STATES
Publisher: AMER GEOPHYSICAL UNION
Publisher Address: 2000 FLORIDA AVE NW, WASHINGTON, DC 20039
Subject Categories: GEOSCIENCES, MULTIDISCIPLINARY

Additional Links

OCEANOGRAPHY

PALEONTOLOGY

In the Full Display you can see the following

Summary Data - as in the Summary Display (see page 6)

Cited Journal Data - Which journals are citing articles in this journal (see page 11)

Citing Journal Data - Which journals this journal is citing articles in (see page 11)

Impact Factor Trend - Graph showing last 5 year's Impact Factors (see page 12).

Related Journals - Which journals have semantic relationships with this one due to having cited each other (see page 12)

Journal Impact Factor - (see page 8)

Journal Immediacy Index - (see page 8)

Journal Cited Half Life + Graph - (see pages 9)

Journal Citing Half Life + Graph - (see pages 10)

Journal Source Data - The number of Review and Non-Review articles published in that year in that journal and the number of references contained in the bibliographies of those articles.

View Journal Summary List - allows you to move between Subject Categories that this journal is assigned to, to see that journal's standing in any other categories that it may be assigned to.

Scope Notes - Shows you what area each Subject Category covers for each of the Subject Categories that the journal is assigned to.

View Category Data - allows you to see the Aggregated Data for a particular Subject Category that the journal is assigned to (see page 14).

Journal Impact Factor

This is the most well-known statistic that comes from the JCR and should be used in conjunction with other statistical data provided in the database. It shows the recent history of the journal.

Journal Impact Factor ⓘ			
Cites in 2004 to articles published in:	2003 = 266	Number of articles published in:	2003 = 98
	2002 = 244		2002 = 71
	Sum: 510		Sum: 169
Calculation:	<u>Cites to recent articles</u>	<u>510</u>	= 3.018
	Number of recent articles	169	

The calculation used in the Journal Impact Factor is quite simple.

- It looks at how many times articles published in the 2 years prior to the JCR edition year (here it is 2004) have been cited in the JCR edition year.
- It then divides the number of citations to these articles by the number of articles published in those 2 years.
- It basically shows an average citation rate per article for the past 2 years and so indicates how articles have performed in the journal since their publication.
- It should be noted that only research papers (articles) and review articles are considered in the calculation of the denominator. Letters, editorials etc are not taken into account. However, the numerator reflects citations to all document types.

Applications

- Librarians can use the Impact Factor to help decide which journals to subscribe to.
- Authors can view the Impact Factor and decide which journals they may wish to submit their papers to for publication.
- Students can check the Impact Factor to see which journals they should be reading.
- Editors can check their journals' Impact factors especially after any policy changes to see if the change has benefited the journal or not.
- Publishers can keep track of their own journals' evaluations and those of their competitors.
- Administrators can see the standard of journals that their academics are publishing in.

Journal Immediacy Index

The Journal Immediacy Index shows how many times papers published the JCR edition year have been cited in that same year.

Journal Immediacy Index ⓘ			
Cites in 2004 to articles published in 2004=	62		
Number of articles published in 2004	= 95		
Calculation:	<u>Cites to current articles</u>	<u>62</u>	= 0.653
	Number of current articles	95	

- The total number of times articles published in a journal in the JCR edition year have been cited in that same year is divided by the number of articles published in that year.
- As with Journal Impact Factor it only takes into account Articles and Review Articles for the denominator.
- If a journal's articles have not been cited in the same year that they were published then the Immediacy Index is zero.
- The Journal Immediacy Index shows which journals are publishing "hot" or cutting edge articles.

Journal Cited Half Life

The Journal Cited Half Life looks at the number of Total Cites received by the journal in the JCR edition year regardless of when the Cited Articles were published. It is only available if the journal has been cited more than 100 times in the JCR edition year.

- First you take the Total Cites made in the JCR edition year
- You see what percentage of those Cites were made to articles published in the JCR edition year.
- You see what percentage of Total Cites were made to articles published in the JCR edition year and the previous year together. This continues adding on years and looking at the cumulative percentage until it reaches 50%. This is the Cited Half Life and is measured in terms of years and fractions of years.
- This information is expanded to show these calculations at individual journal level in Cited Journal Data (see page 11).

Journal Cited Half-Life ⌵

The cited half-life for the journal is the median age of its articles cited in the current JCR year. Half of the citations to the journal are to articles published within the cited half-life.
Cited Half-Life: 7.6 years

Breakdown of the citations *to the journal* by the cumulative percent of 2004 cites to articles published in the following years:

Cited Year	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994-all
# Cites from 2004	62	266	244	219	339	344	311	270	205	258	1384
Cumulative %	1.59	8.41	14.66	20.27	28.96	37.78	45.75	52.64	57.92	64.53	100

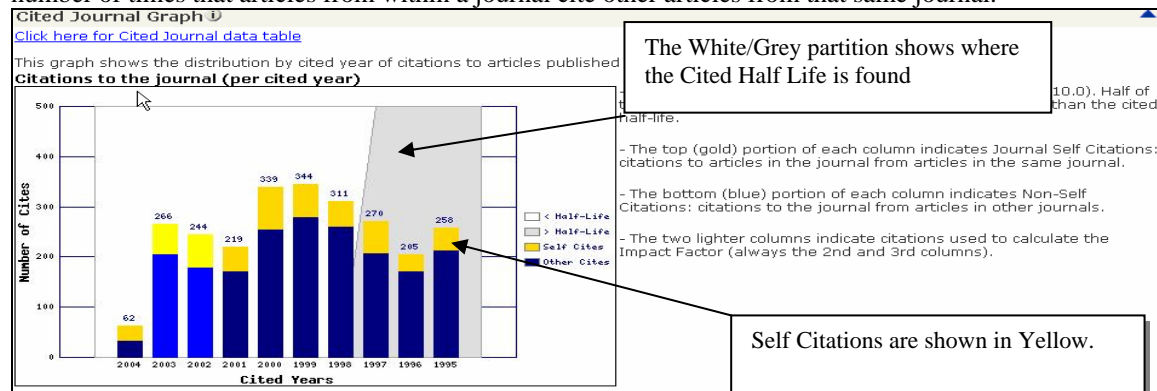
Cited Half-Life Calculations:
 The cited half-life calculation finds the number of publication years from the current JCR year that account for 50% of citations received by the journal. Read help for more information on the calculation.

Applications

- You use the Journal Cited Half Life to see if articles from a journal that were published a long time ago are still being cited. The maximum Journal Cited Half Life is >10 years. This shows you if the journal has a good track record and was producing good articles in the past.
- The Journal Cited Half Life may be useful to library staff in order to carry out collection management. If a journal has a low Cited Half Life it means that older papers are not being cited as much and it may be a reason for not binding these into volumes and archiving them.

Cited Journal Graph

This shows a graphic interpretation of the data from the Journal Cited Half Life table. It also shows the number of times that articles from within a journal cite other articles from that same journal.



Journal Citing Half Life

The Journal Citing Half Life shows how far back the journal that we are studying is citing articles. This is basically the opposite of the Journal Cited Half Life. The data is taken from Journal Source Data table which shows the number of Articles/Review Articles and the number of items in their bibliographies.

This is shown in tabular format as Journal Cited Half Life and graphically as Citing Journal Graph

This information can be found broken down to journal level in Citing Journal Data (see page 11).

Journal Citing Half-Life ⓘ

The citing half-life for the journal is the median age of the articles the journal cited in the current JCR year. Half of the citations in the journal are to articles published within the citing half-life.

Citing Half-Life: 7.9 years

Breakdown of the citations *from the journal* by the cumulative percent of 2004 cites to articles published in the following years:

Cited Year	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994-all
# Cites from 2004	136	365	519	444	505	493	385	392	291	337	2519
Cumulative %	2.13	7.85	15.97	22.93	30.83	38.55	44.58	50.72	55.28	60.55	100

Citing Half-Life Calculations:
The citing half-life calculation finds the number of publication years from the current JCR year that account for 50% of citations in the journal. Read help for more information on the calculation.

Applications

- By knowing how far back the journal cites you can see if the journal is citing the most up to date, cutting edge literature or older literature and so can decide if this journal is valuable in helping you keep up to date in your research area.
- In general Cited Half Life and Citing Half Life are very close in value. If there is a large difference in the number of years it could show that a journal is citing the latest literature but its older literature is mostly being cited or vice versa.

Citing Journal Graph

This shows a graphic interpretation of the data from the Journal Citing Half Life table. It also shows the number of times that articles from within a journal cite other articles from that same journal.

Citing Journal Graph ⓘ

[Click here for Citing Journal data table](#)

This graph shows the distribution by cited year of citations from current-year articles *from the journal* (per cited year)

The White/Grey partition shows where the Citing Half Life is found

Self Citations are shown in Yellow.

Legend:

- < Half-Life
- > Half-Life
- Self Cites
- Other Cites

Annotations:

- The top (gold) portion of each column indicates Journal Self-Citations: citations from articles in the journal to articles in the same journal.
- The bottom (blue) portion of each column indicates Non-Self Citations: citations from the journal to articles in other journals.
- The top (gold) portion of each column indicates Journal Self-Citations: citations from articles in the journal to articles in the same journal.
- The bottom (blue) portion of each column indicates Non-Self Citations: citations from the journal to articles in other journals.

Cited Journal Data

Cited Half Life data shows you which journals have been citing the Parent Journal over a 10 year time period.

It helps establish relationships between journals according to subject area through citation patterns and distribution.

Cited Journal: PALEOCEANOGRAPHY
 Number of times articles published in 2004 (in journals below) cited articles published in PALEOCEANOGRAPHY (in years below). ([How to read this table](#))

Journals 1 - 20 (of 146) Page 1 of 8

Impact	Citing Journal	All Yrs	Cited Year										Rest
			2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	
	All Journals	3902	62	266	244	219	339	344	311	270	205	258	1384
3.018	PALEOCEANOGRAPHY	826	29	62	66	49	86	66	51	64	35	46	272
1.974	PALAEOGEOGR PALAEOCL	275	1	11	12	13	23	29	19	15	23	14	115
3.499	EARTH PLANET SC LETT	232	3	21	16	16	20	23	21	13	14	17	68
3.323	QUATERNARY SCI REV	232	5	25	16	17	19	23	16	25	12	12	62
2.368	MAR MICROPALEONTOL	220	1	11	15	16	9	15	19	7	17	23	87
1.818	MAR GEOL	168	0	8	7	5	16	9	16	16	9	14	68
2.570	GEOCHEM GEOPHY GEOSY	97								4	8	14	17
2.925	GEOLOGY	88								8	3	8	24
32.182	NATURE	87								8	0	7	23
	ALL OTHERS (79)	79								4	5	10	39
1.895	GLOBAL PLANET CHANGE	74								6	2	3	33
3.811	GEOCHIM COSMOCHIM AC	69	1	6	5	4	9	6	7	1	5	6	19

Citations for All Years and for Individual years

All Others indicates journals that have only cited articles in this journal once.

Citing Journal Data

Citing Half Life data shows you which journals the Parent Journal has been citing the over a 10 year time period.

It helps establish relationships between journals according to subject area through citation patterns and distribution and should be used with the Cited Journal Half Life to achieve that purpose.

Citing Journal: PALEOCEANOGRAPHY
 Number of times articles published in journals below (in years below) where cited in PALEOCEANOGRAPHY in 2004. ([How to read this table](#))

Journals 1 - 20 (of 306) Page 1 of 16

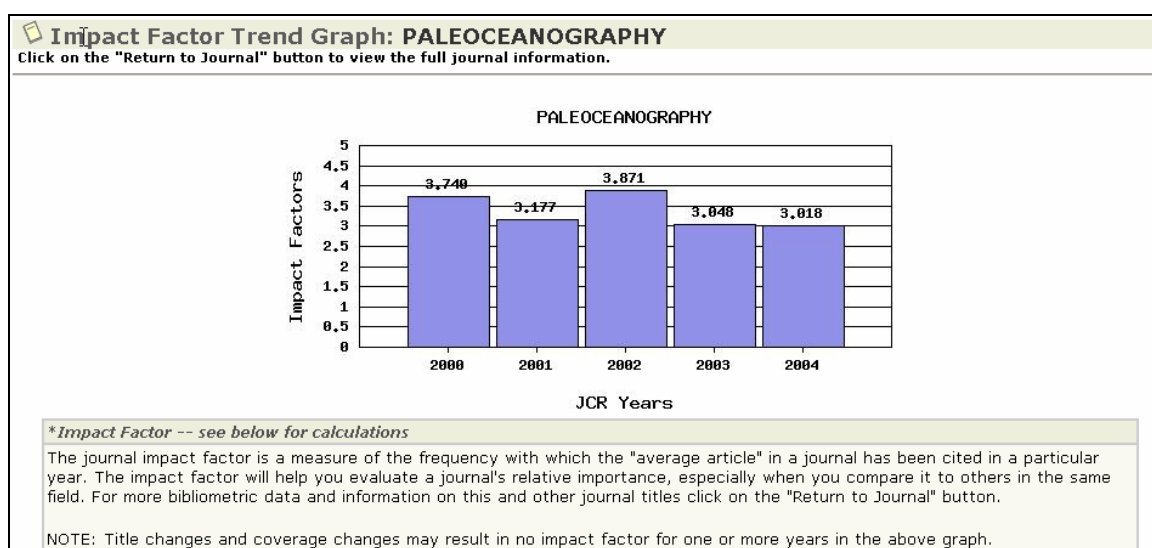
Impact	Cited Journal	All Yrs	Cited Year										Rest
			2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	
	All Journals	6386	136	365	519	444	505	493	385	392	291	337	2519
3.018	PALEOCEANOGRAPHY	826	29	62	66	49	86	66	51	64	35	46	272
	ALL OTHERS (614)	614	18	30	24	26	29	47	26	19	26	30	339
32.182	NATURE	550	9	19	20	32	53	54	49	34	25	44	211
31.853	SCIENCE	396	7	18	42	55	49	25	30	23	24	20	103
3.499	EARTH PLANET SC LETT	248	3	23	21	13	10	18	13	13	15	16	103
3.811	GEOCHIM COSMOCHIM AC	241	4	10	15	14	10	13	18	19	21	13	104

Citations for All Years and for Individual years

Impact Factor Trend

The Impact factor Trend graph shows a bar chart of the last 5 years Impact Factors. This graph is linked from *Web of Science* and *Current Contents Connect* depending on your institution's subscription.

As the Impact Factor is graphically shown over a time period it shows if the journal is improving or not in an easy to view manner and can help in both subscription and paper submission decisions.



Related Journals

Related Journals shows how a journal is semantically related to other journals based on citation information. It shows the *Citation Density* between 2 journals by considering the number of citations going from one journal (*i*) to another journal (*j*).

Parent Journal

Related Journals: PALEOCEANOGRAPHY
Journal Relatedness is based on the strength of cited and citing relationships. below lists journal(s) that likely cover topics related to those covered in PALEOCEANOGRAPHY. [More information about these calculations.](#)

Sort by Journal Name or Relatedness

Journals 1

- R max
- Related journal
- R journal to j
- R j to journal

Page 1 of 4

R _{max}	Related journal (j)	Relatedness (R)	
		PALEOCEANOGRAPHY to j	j to PALEOCEANOGRAPHY
61.53	PALEOCEANOGRAPHY	1361.53	1361.53
595.62	MAR MICROPALAEONTOLOG	223.03	595.62
357.93	J FORAMIN RES	357.93	119.71
290.81	REV GEOPHYS	290.81	185.62
236.94	QUATERNARY SCI REV	111.40	236.94
193.88	QUATERNARY RES	193.88	120.48
192.52	GLOBAL PLANET CHANGE	49.90	192.52
184.33	MAR GEOI	138.72	184.33

R_{max} value is the higher of the two values in the columns showing relatedness.

Relatedness from Parent journal in terms of citations to other journals

Relatedness from other journal in terms of citations to Parent journal

The calculation used to show relatedness is taken from the Cited and Citing Journal Data (see page 12). In theory the calculation is as follows where *i* is the parent journal and *j* is the other journal. The results of these calculations are known as R values.

$$\frac{\text{Citations from } i \text{ to } j * 10^6}{\text{Papers in } j * \text{References in } i.}$$

In practice if we were looking at the relationship between Paleooceanography (*i*) and Marine Geology (*j*), the calculation would be.

$$\frac{163 \text{ (citations from Paleooceanography to Marine Geology)} * 10^6}{184 \text{ (papers in Marine Geology)} * 6386 \text{ (total references in Paleooceanography)}} = 138.72$$

To calculate the relationship from Marine Geology (*j*) to Paleooceanography (*i*) you would switch the calculation to be

$$\frac{\text{Citations from } j \text{ to } i * 10^6}{\text{Papers in } i * \text{References in } j.}$$

And this would be

$$\frac{168 \text{ (citations from Marine Geology to Paleooceanography)} * 10^6}{184 \text{ (papers in Paleooceanography)} * 6386 \text{ (total references in Marine Geology)}} = 184.33$$

Comparing these R Values shows that Marine Geology has a stronger relationship to Paleooceanography than vice versa and so the R value for Marine Geology is the **R_{max}**.

The data that is shown in the table on the last page shows the relationships of the parent journal to other journals and the relationship from other journals to the parent journal expressed as a number derived by these 2 calculations. The higher of these 2 numbers is called **R_{max}**. The higher the value of **R_{max}**, the stronger is the subject connection between the parent journal and the other journal.

Related Journals data are available only for journals that have been cited more than 100 times in the JCR edition year. Also, R values per journal pair are calculated only if each journal cites the other at least two times

The calculation that is used here was developed by our founder Dr Eugene Garfield in conjunction with Alexander Pudovkin in *Algorithmic Procedure for Finding Semantically Related Journals*, 3rd September 2002, *Journal of the American Society for Information Science and Technology*, v53, i1, p1113-1119. This paper can be found at

<http://garfield.library.upenn.edu/papers/pudovkinsemanticallyrelatedjournals2002.html>

Applications

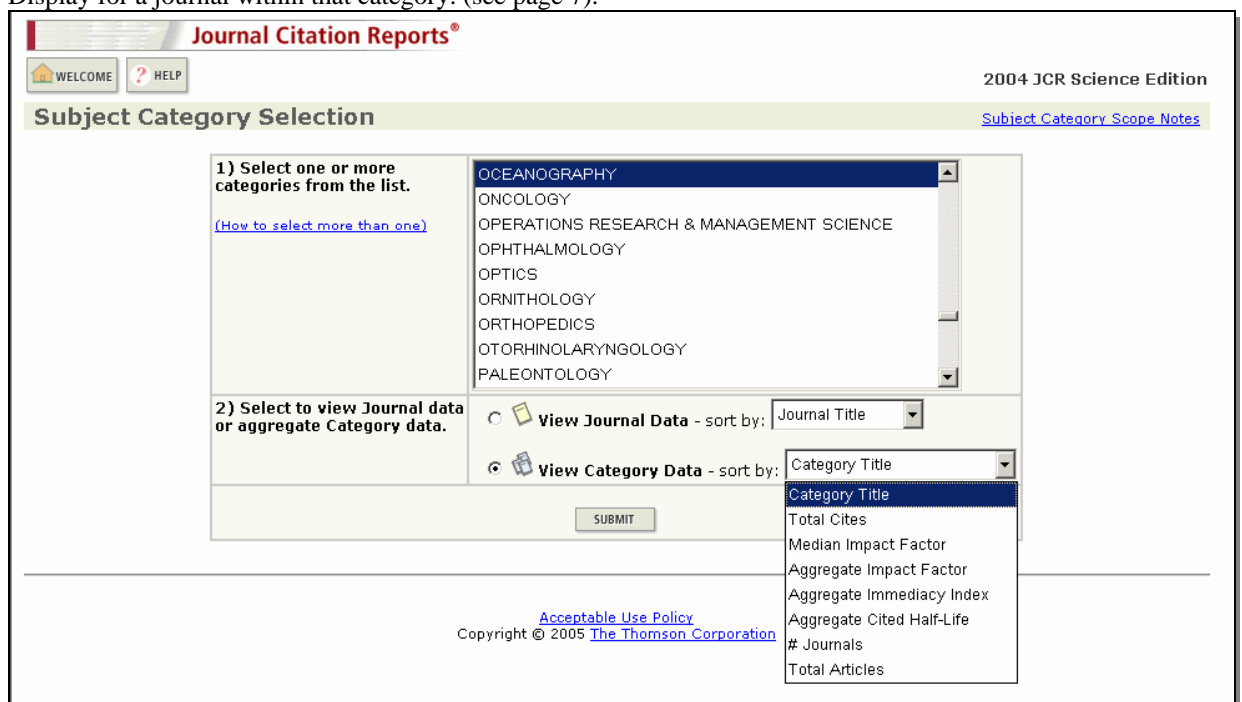
- For Information Specialists this can help to select groups of Related journals to subscribe to.
- For Author it gives a list of journals in their subject area that they may wish to subscribe to.
- For Publishers it helps them keep track of competitors in their subject area and also can help to find possible authors.
- It also can give a list of Related Journals from various subject areas that you may wish to compare Impact Factors of.

Subject Category Data

The sections that follow concern aggregate data for all journals within one subject category.

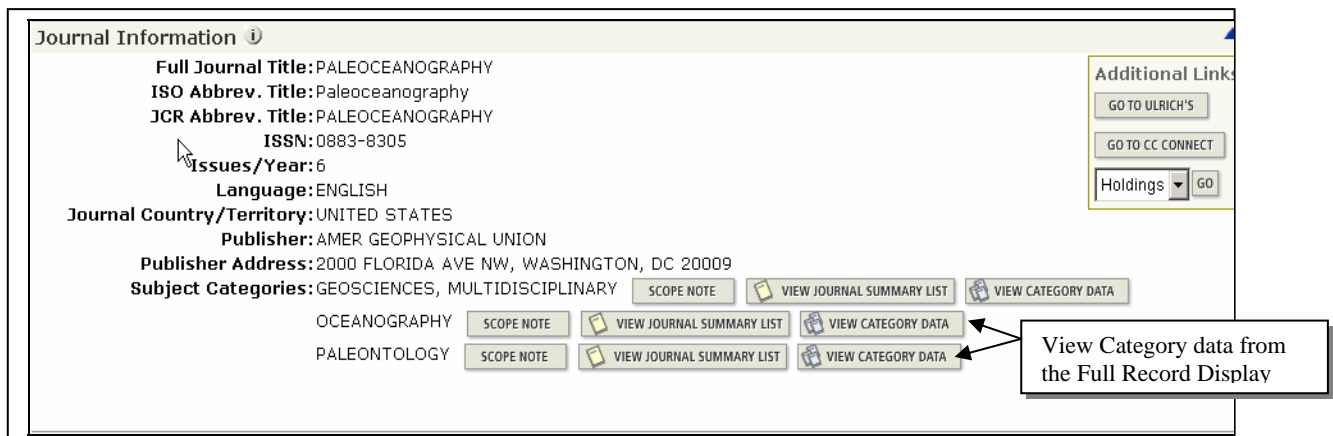
Subject Category data brings together all the data for each individual journal within that category. This helps to see how each Subject Category compares to another category within the database and how journals compare to other journals in the category.

This can be accessed via the initial Subject Category Selection screen (see page 6) or from the Full Record Display for a journal within that category. (see page 7).



Once the Subject Category has been selected then the data can be sorted by Category Title, Total Cites, Median Impact Factor, Aggregate Impact Factor, Aggregate Immediacy Index, Aggregate Half Life, Number of Journals and Total Articles.

From the Full Record Display you can also see the Subject Category data.



Category: OCEANOGRAPHY							
Total Cites	Median Impact Factor	Aggregate Impact Factor	Aggregate Immediacy Index	Aggregate Cited Half-life	Aggregate Citing Half-life	# Journals	Articles
77389	1.058	1.411	0.387	8.20	9.40	41	2985

[Cited Category](#) [Citing Category](#) [Source Data](#) [Publication Frequency](#)

[CITED CATEGORY DATA](#) [CITING CATEGORY DATA](#) [RELATED JOURNALS](#) [SCOPE NOTE](#) [VIEW JOURNAL SUMMARY LIST](#)

Total Citations for All Journals in the Category

Number of Journals and Articles in this Category

The Subject Category Data contains

- Total Cites in the JCR edition year for all journal in that Subject category
- Median Impact Factor which is the Impact Factor of the middle journal in this Subject Category if the journals are sorted by Impact Factor (see page 15).
- Aggregate Impact Factor (see page 16)
- Aggregate Immediacy Index (see page 16)
- Aggregate Cited & Citing Half Life (see page 17)
- Related Journals (see page 17)
- Cited Citing Category (see page 18)
- Source Data (see page 19)
- Publication Frequency (see page 19)

Median Impact Factor

The Median Impact factor takes into account all journals within a Subject Category. The journals are sorted by Impact Factor with the highest Impact Factor being treated as the top journal. The system then looks for the middle journal by Impact Factor in the journals for this Subject Category. This represents the Median Impact Factor.

In the example used here, in the Subject Category “Oceanography”, there are 41 journals in the JCR 2004 edition. If these are sorted by Impact Factor then the Median Impact Factor will be the Impact Factor of the 21st journal which is Estuarine, Coastal & Shelf Science

Median Impact Factor for Subject Category “Oceanography”

Rank	Abbreviated Journal Title <i>(linked to journal information)</i>	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
21	ESTUAR COAST SHELF S	0272-7714	3962	1.058	0.110	182	8.2

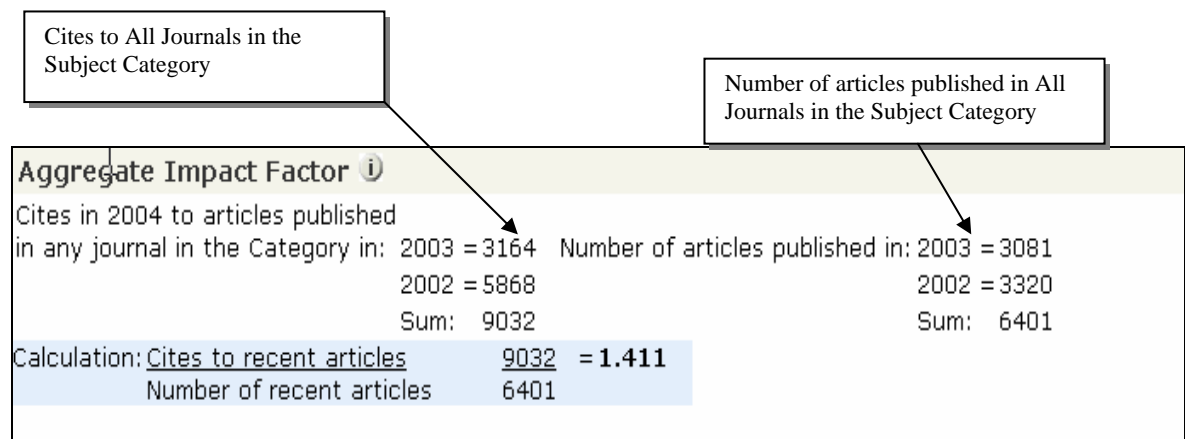
Journal	Impact Factor	Journal	Impact Factor	Journal	Impact Factor
1 OCEANOGR MAR BIOL	4.118	15 CONT SHELF RES	1.431	29 OCEANOLOGIA	0.696
2 LIMNOL OCEANOGR	3.024	16 J MAR RES	1.397	30 APPL OCEAN RES	0.526
3 PALEOCEANOGR RAP HY	3.018	17 POLAR RES	1.362	31 OCEAN COAST MANAGE	0.52
4 MAR CHEM	2.608	18 IEEE J OCEANIC ENG	1.199	32 OCEAN ENG	0.435
5 PROG OCEANOGR	2.432	19 DYNAM ATMOS OCEANS	1.116	33 ENV ATMOS OCEAN PHY+	0.433
6 J PHYS OCEANOGR	2.38	20 ICES J MAR SCI	1.105	34 J NAVIGATION	0.365
7 DEEP-SEA RES PT I	1.975	21 ESTUAR COAST SHELF S	1.058	35 MAR TECHNOL SOC J	0.358
8 J MARINE SYST	1.94	22 ATMOS OCEAN	1.021	36 OCEANOLOGY+	0.289
9 MAR GEOL	1.818	23 MAR FRESHWATER RES	0.965	37 TERR ATMOS OCEAN SCI	0.277
10 J OCEANOGR	1.669	24 NEW ZEAL J MAR FRESH	0.945	38 MARG BOD RESOUR GEOTEC	0.195
11 FISH OCEANOGR	1.662	25 HELGOLAND MAR RES	0.861	39 INDIAN J MAR SCI	0.15
12 TELLUS A	1.603	26 B MAR SCI	0.859	40 MAR TECHNOL SNAME N	0.113
13 J SEA RES	1.566	27 GEO-MAR LETT	0.859	41 NAV ENG J	0.07
14 DEEP-SEA RES PT II	1.537	28 OCEANO LACTA	0.763		

Aggregate Impact Factor

The Aggregate Impact Factor looks at all citations made to Articles and Review Articles made to all journals in the JCR edition year to articles published in all the journals in that category in the previous 2 years.

This helps to be able to judge one journal from that category against the average Impact Factor for other journals in that category and shows you the “average” citation behavior of articles in that Subject Category.

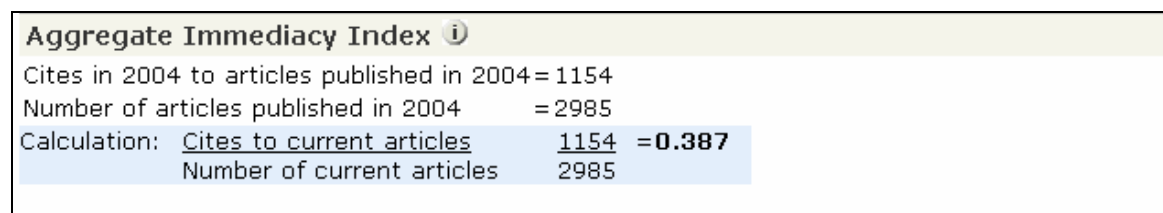
This works the same as Journal Impact Factor but at the Subject level.



Aggregate Immediacy Index

As with the Aggregate Impact Factor this information takes into consideration Citations made in the JCR edition year to articles published in that same year in All Journals in the particular Subject Category.

It helps to see how quickly journals on average are cited in that Subject Category and so see if this is a “fast-moving” subject area.



Aggregate Cited & Citing Half Life

As the Aggregate Impact Factor show the time period in which it takes articles to gain 50% of the Total Citations for all journals in that category.

It helps show if articles in that category are still citing articles in both that same category and other categories for an extended period or just recent articles.

Cited Half Life shows how far back the articles in that category are being cited and Citing Half Life shows how far back articles in that category are citing.

As with Cited & Citing Half Life for journals this comes with a graphical representation in the Cited or Citing Category graph but this does not show “self citations” as these are limited to individual journals.

Aggregate Cited Half-Life ▲

The cited half-life for the category is the median age of its articles cited in the current JCR year. Half of the citations to the category are to articles published within the cited half-life.
Cited Half-Life: 8.20 years

Breakdown of the citations *to the journals in the category* by the cumulative percent of 2004 cites to articles published in the following years:

Cited Year	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994-all
# Cites from 2004	1154	3164	5868	5703	6269	5526	4875	5100	4093	3959	31678
Cumulative %	1.49	5.58	13.16	20.53	28.63	35.77	42.07	48.66	53.95	59.07	100

Cited Half-Life Calculations:
 The cited half-life calculation finds the number of publication years from the current JCR year that account for 50% of citations received by journals in the category. Read help for more information on the calculation.

Related Journals (in Category)

Whereas Related Journals (see page 12) refers to the relationship between a “Parent” journal and other journals either within or outside of the category, this Related Journals function compares individual journals with the Aggregate information for All of the journals in the Subject Category.

Journals Related to Subject Category: OCEANOGRAPHY

Relatedness is based on the strength of cited and citing relationships.
 The table below lists journals that likely cover topics related to those covered in the category OCEANOGRAPHY.
[For more information about this calculation.](#)

Sorted by:

Journals 1 - 20 (of 914) Page 1 of 46

R _{max}	Related journal (j)	Relatedness (R)	
		Subject Category to j	j to Subject Category
226.33	J MAR RES	226.33	122.07
173.85	PROG OCEANOGR	173.85	77.61
157.71	J PHYS OCEANOGR	157.71	119.89
153.82	REV GEOPHYS	153.82	14.15
123.95	LIMNOL OCEANOGR	123.95	68.86
117.95	DYNAM ATMOS OCEANS	117.95	54.66

As with Related Journals at an individual journal level the information comes from the Cited Data in this case Cited & Citing Category Data (see page 18).

The calculation used is similar and is

$$\frac{\text{Citations from } n \text{ to } j * 10^6}{\text{Papers in } j * \text{References in } n.}$$

Where n replaces the i and so the data for the parent journal is replaced by the aggregate data for all journals in same category.

In the example of the Subject Category “Oceanography” the calculation would be as follows.

$$\frac{898 \text{ (citations from Subject “Oceanography” to J. Marine Research)} * 10^6}{184 \text{ (papers in J Marine Research)} * 118800 \text{ (total references in Subject “Oceanography”)}} = 226.33$$

We can also see the opposite relationship between the journal (J. Marine Research) and the Subject Category.

$$\frac{587 \text{ (citations from J. Marine Research to Subject “Oceanography”) } * 10^6}{2985 \text{ (papers in Subject “Oceanography”) } * 1378 \text{ (total references J Marine Research)}} = 122.07$$

Comparing these R Values shows that the Subject “Oceanography” has a stronger relationship to J Marine Research than vice versa and so the R value for “Oceanography” is the **R_{max}**.

This helps to identify the relationship between an individual journal and the journals as a whole in that Subject Category and so gives a big picture of how a journal fits into one or more categories.

Cited & Citing Category Data

As with Cited and Citing Journal Data (see page 11), Cited & Citing Category Data give us an idea of which journals are citing articles from journals within a category so showing the which journals are most active within that category and also outside that category.

Cited Subject Category: OCEANOGRAPHY													
Number of times articles published in 2004 (in journals below) cited articles published in the journals in the subject category OCEANOGRAPHY (in years below). (How to read this table)													
Journals 1 - 20 (of 995) Page 1 of 50													
Citing Journal	# Journals Cited	Cited Year											
		All Yrs	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	Rest
All Journals	41	77389	1154	3164	5868	5703	6269	5526	4875	5100	4093	3959	31678
ALL OTHERS (3546)	41	3546	23	125	253	255	284	262	243	217	196	160	1528
J.GEOPHYS.RES	35	3466	41	142	296	282	260	234	184	222	167	172	1466
MAR.ECOL.PROG.SER	29	3334	28	147	304	243	300	179	239	224	163	172	1335
J.PHYS.OCEANOGR	21	2376	39	108	205	199	158	156	116	149	136	124	986
LIMNOL.OCEANOGR	26	2004	32	93	160	183	140	124	161	132	100	101	778
DEEP-SEA.RES.PT.I	30	1825	12	64	188	187	136	127	109	146	91	97	668
CONT.SHELF.RES	30	1794	18	57	111	109	151	161	110	109	124	159	685
MAR.GEOL	26	1738	104	70	143	113	155	149	101	101	92	103	607
DEEP-SEA.RES.PT.II	26	1665	22	56	180	115	148	102	115	113	72	93	649

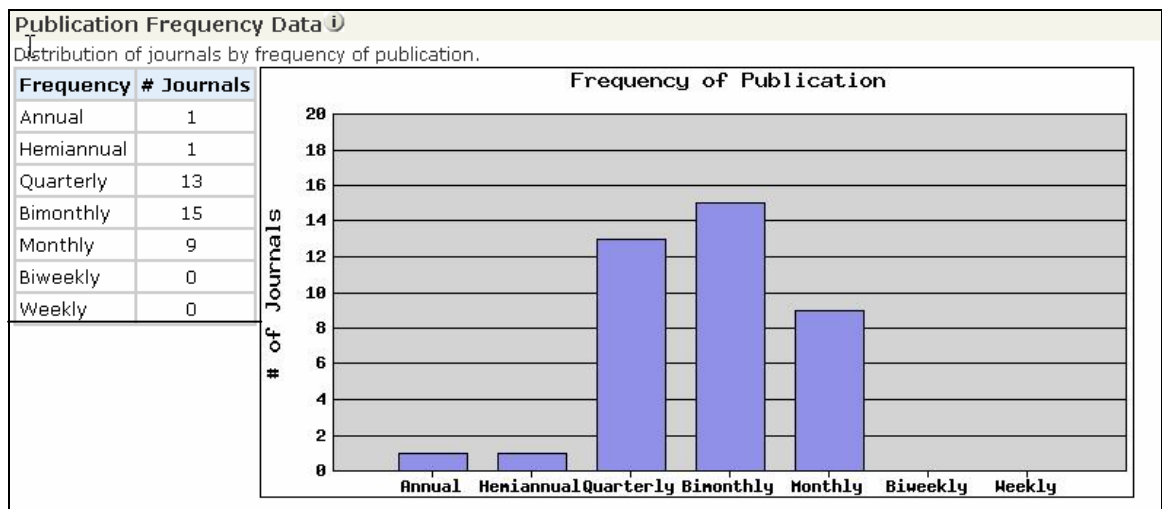
As with Cited & Citing Journal Data this shows citation data over a 10 year period. All Others in this case means all journals that have cited articles in this category only once (for Cited Category) or all journals that have been cited only once by articles in this category (for Citing Category).

Source Data (in Category)

Source Data shows how many *Articles & Review Articles* have been published in All journals in that Subject category and how many references were contained in those “articles” bibliographies or reference lists.

Publication Frequency

This very simple table and graph shows how often journals within that Subject Category publish



Contact Details

Americas

3501 Market Street
Philadelphia, PA 19104
USA
Phone: +1 800 336 4474
+1 215 386 0100
Fax: +1 215 386 2911

Japan

Thomson Corporation K.K
Palaceside Bldg. 5F
1-1-1 Hitotsubashi, Chiyoda-ku
Tokyo 100-0003
Japan
Phone: +81 3 5218 6500
+81 3 5218 6530
Free dial: 0800 888 8855 (from Japan only)
Fax: +81 3 5218 6536
Web: www.thomsonscientific.jp

Asia Pacific

16 Collyer Quay
#22-00 Hitachi Tower
Singapore 049318
Phone: +65 6879 4118
Fax: +65 6223 2634

Australia

Level 5
100 Harris Street
Pyrmont, NSW 2009
Australia
Phone: +61 2 8587 7948
Fax: +61 2 8587 7848
Toll Free Phone: 1800007214 (Australia)
0800443162 (New Zealand)

India

Pinnacle #15
Bahai's Bhavan Road
(formerly Commissariat Road)
Bangalore 560 025
India
Phone +91 80 25550333 ext. 3322
Fax +91 80 25323979

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Beijing, People's Republic of China
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China – ts.support.china@thomson.com

Japan – ts.support.jp@thomson.com

Korea – ts.support.korea@thomson.com

Rest of Asia – ts.support.asia@thomson.com