

# 19. Report Writing and Publication Strategy

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In an academic world, it is critical to develop a research 'track record', a key indicator of which is the publications list. This can influence job satisfaction, promotion opportunities, and success in obtaining grants and consultancies. Publications are probably the single most important means by which researchers in universities, colleges and research institutions are evaluated. Publishing research results sends a signal to potential research funders and employers that the researcher is capable of bringing a research project to a conclusion and can produce a tangible outcome. Peer review provides a critical validation of the research methods and findings. Publications are also a major element in the transfer of technology – such as new processes and new understanding of system behaviour and management techniques – to potential users. Particularly when grant funding has been obtained, publication is expected, and is the requirement for further funding. Writing papers is a critical task for researchers. Many people do excellent conceptualisation, literature reviews, statistical analysis and other research activities, but fail to document their findings in a non-perishable and widely available form. Some people are 'writerholics' who write through compulsion; others are strongly disinclined to 'put pen to paper' and will always find something else pressing to do rather than write up their research. Writing is to some extent a matter of habit. However, some tips can be given to improve writing skills. While success in research is to a large extent a matter of commitment and perseverance, a number of strategies may be employed to increase effectiveness. Different strategies work best for different people, but a number of observations may be made as to how to be more effective in this endeavor. This module examines various aspects writing up and publishing research findings. The observations made here represent to some extent the personal views and experiences of the authors, and are designed to provoke interest and discussion on research publication strategies.

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## 1. WRITING GENRE

The researcher must bear in mind the style of writing which is most appropriate for the particular type or output. For example, when writing a thesis, there is little pressure on space, but a strong imperative to demonstrate that all relevant aspects have been considered and all assumptions made clear (a defensive form of writing). There is also need for a considerable amount of *motivataion* (saying why material is presented) and *signposting* (saying how material is set out). Journal articles on the other hand are expected to be highly organised and concise; journals are expensive to produce and have tight space limitations. Differences exist between different types of journals; science journals tend to follow the 'aims – materials – method – results' format, while journals in the social sciences and humanities are a little more expansive. Working papers and conference papers tend to be written more quickly with less finishing-off effort than

journal articles. When writing textbooks or other teaching materials, it is generally necessary to provide extensive explanation to make sure that readers can understand the concepts being presented, and to reinforce this with a large number of examples and perhaps case studies. Material which is intended for a multidisciplinary audience must contain relatively simple explanations. In the case of extension material, this generally has to be written in a more popular and catchy style.

## 2. CRAFTING A RESEARCH PAPER

A research paper – e.g. journal article, conference paper, discussion paper – tends to have a relatively standard structure. This varies somewhat between journals, and disciplines, so the following suggestions won't find precisely for every case, but are based on experience for a variety of publication outlets.

Typical sections of a research paper are: an abstract (of about 150 words, sometimes followed by keywords and journal classification codes<sup>1</sup>), acknowledgments (usually either a footnote to the first page or a section before the references), introduction, research method, a number of sections forming the body of the paper, discussion, concluding comments, references, and perhaps one or more appendix.

The *Abstract* should be a brief overview of what the paper is about, a note on the methodology, and a concise summary of the main findings, such that a potential reader can decide whether to read the paper in detail. The *Introduction* should indicate what the paper is about in general terms, perhaps review some relevant literature, perhaps mention areas of controversy or important information gaps, indicate in general terms what methodology has been adopted, and state how the paper is set out (the sequence of sections). The amount of detail will vary between short communications and longer papers. These two sections (Abstract and Introduction) are often badly crafted in draft papers.

*Literature review* material may appear in a separate section, but often this is contained both in the Introduction and throughout other sections of the paper. It is important to make clear the *Methodology* which has been adopted, often as a separate section. If the paper reports survey findings, then the study area, sampling frame, survey method, response rate, and method of data analysis would normally be indicated. In a review paper, there may be no need for a Methodology section.

It is difficult to lay down guidelines as to what structure the body of the paper will take. If results are being presented – e.g. from experiments, modelling or surveys – then a critical reviewer would normally look to see if there was any statistical analysis (such as *t*-tests, regression analysis or ANOVA). In qualitative research or review papers, it may not be possible to provide this type of analysis. The main results of the research are normally presented in the

body of the paper, sometimes as a separate section.

The *Discussion* section provides an opportunity to expand on research results, and any limitations of the methodology and findings, and to highlight the main implications for management or policy.

The *Conclusions* section tends to summarise and remind the reader of the main impressions they should take away from reading the paper. This section is often brief, and the heading *Conclusion* (singular) or *Concluding comments* is sometimes used, to signify the section concludes the paper, and does not necessarily present detailed conclusions from the research. A guiding principle for this section is ‘say what you found, not what you did’ – don’t repeat comments on the methodology or paper layout.

*Appendices* are useful when the author wants to include information which is more technical and could be useful for a specialist reader, or which is necessary to support the main arguments, but would interrupt the flow of text if included in the body of the paper. This keeps the paper concise, but provides an opportunity to include the additional information.

### 3. HANDLING REFERENCES

The handling of references can present many difficulties, so is worth considering separately here. In general, references in text should indicate author’s name and year only; full references should be compiled at the end of the paper (not provided as footnotes).

There are many formats adopted by journals – an almost unlimited combination of sequences and syntax – and the writer has little choice but to follow house styles. A critical requirement is to obtain all necessary information when initially capturing references; this may include both volume and *issue* for journals, and *city* (not country) of publication for books and reports. It is extremely painful and time wasting to have to chase up the original sources because incomplete information was recorded initially. A recent personal experience of this was when a journal

<sup>1</sup> For example, in economics the JEL Classification Codes are often included.

insisted on stating the number of pages in books and reports referenced.

In the case of personal communications, it is desirable to provide information about the informants claim to expertise – designation, employer, location – in the references section. Anagrams are often preferable for text references, especially for agencies with long convoluted names – provided full details are provided in the reference section.<sup>2</sup>

The use of indirect references – of the form ‘Brown (1988, cited in Bloggs, 2001)’ – is to be avoided if at all possible, since it indicates a lack of effort to chase down the original source.

While ‘Anon’ was commonly used in the past for unknown authors, this tends not to be acceptable now. Sometimes the name of the agency is cited, if there is no information about the particular persons who did the writing.

Increasingly, material from the Web is cited in research papers. Reviewers of submitted papers tend to be rather critical of the Web as an information source, since much of the material posted has undergone little or no validation (peer review). It is desirable to indicate the full http address, the agency to which it applies where possible, as well as the date when the site was accessed.

For convenience, references may be kept in a reference database, such as Endnote. This allows them to be conveniently grouped under topics, and extracted in a variety of formats, to suit the style of the publication medium.<sup>3</sup>

#### 4. FURTHER WRITING HINTS

<sup>2</sup> In Australia, the Department of Employment, Education, Training and Youth Affairs – which was responsible for the points system for grading university publications – was much more simply referred to in text as DEETYA. Like many public sector agencies, the name has been changed at least once since this mouthful.

<sup>3</sup> This can also save time chasing up a reference from another document on the computer hard drive, e.g. using Windows Explorer – Tools – Search – Containing text.

While choice of words is a personal thing, some guidelines can be laid down on what presentation is likely to be well received by editors and reviewers. While some authors like to use extravagant language, in general a guiding principle is to keep the text as simple, straightforward and uncluttered as possible, both visually and in terms of the message conveyed.

There are a number of words commonly used in conversation which are to be avoided or minimized in written material. These include:

\* vague terms, e.g. ‘very’ (‘highly’ may be a better choice), ‘fairly’, ‘quite’, ‘different’ (as an adjective – ‘various’ is often a better choice).

\* terms that have well accepted meanings which differ from the context in which they are being used, and are sometimes used excessively in written material, e.g. ‘good’ (means a product, or holy), ‘certain’ (can often be replaced by ‘particular’ or ‘specific’) ‘significant’ (a term which has a specific meaning in statistics relating to probability levels in hypothesis tests – ‘considerable’ or ‘major’ may be better choices).

\* terms which are misused in everyday language and can be irritating to the reader, e.g. ‘cheap’ (not an economic term, and often taken to mean ‘of low quality’), ‘quality’ (used far too often and without any qualification of ‘high’ or ‘low’ quality)

\* uninformative terms, such as ‘results’ (it is usually possible to indicate what type of results are being provided)

\* personal pronouns, such as ‘we’ and ‘you’. These can be used to effect for a reader-friendly ambience in a textbook, but in a journal article are rather too informal.

\* inappropriate use of adjectives, such as in the expression ‘cold temperature’, ‘cheap prices’ and ‘early age’. Here the noun is a number, not a characteristic, e.g. air temperature is a number between –70 and +50 approximately, in celsius), but the adjective is designed to describe a characteristic. In each case here, ‘low’ would be a better adjective.

A construction to be avoided is to commence a new paragraph with an expression designed to link sentences in the same paragraph, such as 'Therefore', 'Hence', 'As a result' and 'However'.

The wording of section headings should be sufficient to convey to the reader what the section covers, i.e. should be relatively 'stand-alone' or convey context. It is better to have long headings (even running on to a second line) than overly brief (including one-word) headings. It is undesirable to have two headings running; normally, there should be some substantive or at least signposting text between headings.

References are normally cited in past tense, since the author may no longer have the same view, or may not even be alive. It would not make much sense to say 'Faustmann (1844) argues that the optimal rotation is ...'.<sup>4</sup>

Graphs and tables require particular attention. It is important to label the axes or columns with the name of the variable (not just the units, e.g. '(%)'). All columns of a table, including the first, should have a caption. A table must have a title, and be situated in document at a point after which it has been mentioned in the text. (Some journals require tables and figures to be grouped at the end of a paper when it is submitted.) A table should have a minimum number of horizontal lines – usually at the top and bottom of the row containing the column captions and at the bottom of the last row of the table. Vertical lines are to be avoided if at all possible. Following these guidelines will result in an uncluttered appearance.

A number of style guides are available, which provide advice on both writing style and syntax, e.g. the Cambridge guide and the AusInfo guide. While these are recommended reference works, it must be borne in mind that each journal has its own in-house style. Also, the style of writing tends to vary between disciplines. One interesting example is that in the sciences it is a guideline to include descriptive material about tables in the title, whereas in the

social sciences the principle is to keep table titles as concise as possible and confine all explanatory material to the text or a table footnote.

## 5. FORMS OF PUBLICATIONS

There are various forms of papers, and to some these forms can be stages in the production of a journal article.

### Conference papers

This is often the first form of publication of research or review findings. A commitment to a conference presentation provides a deadline which can increase a researcher's focus – one needs to prepare something useful to say. A conference is a made-to-order feedback mechanism, though often the most useful comments will be obtained outside the formal sessions. Audience members may draw attention to other related research. Often the proceedings will be published, in which case these are claimable publications. Sometimes conferences result in an invitation to submit a paper to a journal.

### In-house discussion papers and monographs

These are sometimes used as a first run, or as a more durable form for an unpublished conference paper, to establish claim in the field, publicise research and obtain feedback. These have higher status if subjected to peer review process.

### Journal articles

In general, the greatest publication credit is obtained for having papers published in refereed journals. This can be a time consuming and exacting task. Choice of an appropriate journal is critical. Ideally, articles will be submitted to 'double blind review' by two or more reviewers, i.e. where the authors does not know who the reviewers are, and the reviewers do not know who the authors are. Sometimes single blind review, where the author's names are disclosed to the reviewers, is appropriate; the reviewer's then know 'where the authors are coming from' with their views and can take this into account. Sometimes papers rejected in one journal

<sup>4</sup> Here 'argues' should be changed to past tense, but 'is' should remain in present tense.

will be accepted by another.

### **Book chapters**

These are another well respected form of publication, though often ranked not quite as highly as journal articles. The review process for books typically is not as exacting as for journals.

### **Authored and edited books**

Authored books tend to be regarded more highly than collections of chapters individually authored by contributors. Also, books with a mainly research focus tend to be regarded more highly than textbooks. Notably, the weight given to books depends to some extent on the idiosyncrasies of the appraiser. For instance some people say that nothing new ever appears in text books, and that the only worthwhile publications are those presenting original research in journal articles. Others regard books with publishers of high standing as important publications.

### **Consultancy reports**

To some extent, taking on consultancies is competitive with undertaking research projects. In an academic environment, consultancy reports typically are not considered as 'publications' in terms of the narrow criteria which bring academic recognition, funding and promotion. However, taking part in consultancy projects can be invaluable experience, can provide an important service to industry or community, can lead to development of new professional contacts, and can lead to subsequent production of papers for publication. Hence it appears desirable to undertake some consultancy work, but not at such a high level as to prevent other more traditional university research.

### **Extension papers**

These can perform a useful technology transfer and service function. Unfortunately, in an academic environment, they are given little if any credit.

## **6. GETTING ITEMS PUBLISHED**

Even when a researcher writes highly

original and interesting papers, publication is by no means assured, and there is a good deal of strategy involved in having papers accepted for publication. Choice of journal is important, since research quality is assessed by quality of the journal in which it is published and it is therefore necessary to aim for as journal of as high standing as possible. Importance of high-standing, high impact, high citation rate journals. This does involve to some extent maintaining a clear disciplinary focus in one's research program. While it is critical for junior faculty staff to build up the length of their publication record, the importance of publishing in high-standing, high impact, high citation rate journals cannot be overemphasised. At the same time, the journal should be clearly within the researcher's discipline area. In establishing a research reputation, it is necessary to be seen as a specialist in a particular area, and not a generalist publishing over a wide spectrum of outlets – 'the jack of all trades is a master of none'! Further comments on choice of journal are provided in later sections of this module.

Sometimes it is difficult to know if a paper one has written is publishable. In this situation, it is helpful if an opinion can be obtained from an experienced publisher, such as a departmental mentor. Often the write will not recognize the publication potential of their work.

Sometimes a publication outlet can be found for concept papers. This means for example that a project proposal can be worked up into a publication. Obviously, a lot of research often goes into a research application, so this is not an unreasonable outcome.

There can be advantages in joint authorship. To the extent that length of publication list is important, it can be beneficial to have a large number of jointly authored papers, rather than a small number of sole-authored papers. Also, the combined efforts of two or more researchers can result in stronger papers and hence acceptance in better journals.

When seeking to have books published, it is usually necessary to prepare a book proposal for a publishing house. Most

publishers can provide a set of instructions on the kinds of information they require to make a judgment about accepting a book. This information will include details on the authors, competing books, special features, amount if international material, the targeted market and potential sales, expected length, extent of graphics, potential reviewers, possibility for translation into other languages, and various other things. It is usually necessary to submit a few sample chapters, though some publishers will want to see a draft of the overall manuscript before making a commitment. The information sought by the publishers is usually designed to give them an indication of the market size and production cost. In some cases, the publisher will have a preference for being provided with camera-ready copy; this reduces their production costs, hence allowing smaller print runs, and greatly speeds up the publication process.

The manuscript will sometimes be sent for expert review. Almost invariable, a copy editor will make style corrections. Once the page proofs of the text are finalised, the authors will need to prepare an index. This usually involves preparing a list of items, sub-items and page numbers, most easily done on a computer and using an alphabetical sort. Modern wordprocessor packages have the capability to form an index, through selecting appropriate words in the document files, though it is not clear that this actually saves time in preparation of an index.

Nowadays, Powerpoint slides are widely used for conference, symposium and workshop presentations. While these are occasionally published, it should be kept in mind that Powerpoint slides have little information content except in the presence of the author providing a commentary on them. If one has prepared a Powerpoint display, but not written a formal paper, it may be possible to capture the essence of the presentation by use of a cassette (or microcassette) recorder.

It is interesting to observe habits of highly successful researchers. One person with a notably impressive publication record devotes a block of time each day to writing (typically 5am to 10 am, before going to the

office), spends a good deal of time contemplating and conceptualising, keeps collections of notes and ideas on various papers under development, does not use a computer (but has research typing support), writes relatively short papers, produces a large number of discussion papers which are later developed into journal articles, and is able to bring papers to a publishable state with remarkably few drafts. Unfortunately, some of these habits are not particularly feasible for most of us, but there are certainly lessons to be learned from successful researchers.

A useful principle to keep in mind is to become a habitual writer, e.g. type up field notes and summaries on discussions, script lectures, write discussion papers, commit to conferences. Writing becomes easier, and confidence is gained about writing ability, with practice.

## 7. CHOOSING THE RIGHT JOURNAL

Choosing the appropriate journal to publish an article in is one of the most important decisions that are made in the publication process. Not all journals are equal in terms of quality and prestige. The next section deals with two the key issues associated with selecting a journal, i.e. (1) matching the type of article to the publication outlet, and (2) determining the quality of a journal.

### Matching the article to the journal

Journals are selective in what they publish. They usually publish material on a particular discipline area such as forestry, environmental management, or nuclear physics. It seems almost self-evident that it is important to select a journal that publishes material on the topic of your paper. The general discipline area of a journal is usually evident from its title. For instance, it is obvious that the *Journal of Forestry* publishes papers in the general area of forestry. What may not be clear is the specific focus of a journal. For instance, the discipline of forestry covers areas such as silviculture, mensuration, forest economics, extension and ecology, and there are many forestry journals in print which sever particular specializations in the discipline. Some journals only publish papers in quite specific specialty areas

within a discipline. Particular journals also often favour particular styles of articles. Some journals publish only highly quantitative papers which involve large data sets obtained from rigorous experiments. Other journals publish material that is qualitative in nature or more policy orientated, while other journals publish mainly review material. It does not matter how good a paper is, it is unlikely to be accepted by a journal if it is not consistent with the fields and style of material that the journal publishes.

It is critical to spend some time determining which journals are likely to be interested in the article that you are preparing. It is preferable to do this research at an early stage of preparing the paper. An attempt should be made to keep the style of the paper as consistent as possible with that used in the target journal. This reduces the likelihood of the paper being rejected on the basis of inconsistency with the style and nature of the journal.

The easiest way to identify whether a journal is appropriate is to read past issues and see if papers have been published in the field of the your paper and which use similar methodologies. Usually you will refer to a number of past studies in a manuscript and a sound guide to suitable journals is to look at what journals have been the sources of the key references of your paper. If still uncertain, it is advisable to contact the editor of a journal to see if they are interested in publishing the type of paper you are preparing.

As a general rule, try to publish in the best journal that will accept your work. Saying this, it is also important to be realistic about the quality of the work that you produce. Some pieces of research that you produce will be better than others. Some articles will be good enough to get into top international journals while other pieces of work might be more suited to regional journals. Comparing your work with articles published in the journal under consideration is probably the best way to whether it is of suitable quality. Important things to keep in mind include the size of your data set compared with other studies, the uniqueness of the work, thoroughness of analysis, the types of statistical techniques used, the level of

theory development and extent of referencing to recent relevant literature. Top journals seldom publish research or review articles that have methodological flaws or lack a sound theoretical framework.

Usually the Chief Editor of a journal acts as the 'gatekeeper' and will not allow unsuitable papers to proceed to the review process, although this is not always the case. Publication can be delayed substantially by submitting a paper to the wrong type of journal, particularly if it goes into the review process before being deemed to be unsuitable.

It is almost inevitable that at some stage a paper one submits will be rejected. Do not feel discouraged – this happens to everyone – even the best of researchers. Aim to submit the article to the next journal on the list that you have identified. When a paper is rejected, the editor is likely to provide some feedback on what was considered unsatisfactory in it. The rejection may have been on the basis of the article not being consistent with fields and style of the journal. In other cases the paper may have gone to review and was rejected on the basis of reviewers' comments. If this was the case then the editor is likely to forward the reviewers' comments as well as some comments of their own. The comments of the editor and reviewers are often useful feedback and should be addressed as far as possible before resubmitting the paper to another journal. It is likely that the next reviewers will have some similar views to the previous reviewers. Before submission, it is important to rework the paper following the particular style requirements of the new target journal.

### **Quality vs quantity – which is more important?**

The point has been made elsewhere that some avenues for publication are better than others. Generally, journal articles are considered to be better than book chapters, which are in turn considered to be much better than published conference and discussion papers. While this is true, it is also true that some journals are much better than others. It is also true that something is better than nothing.

The question of quantity versus quality is an important one and bears some discussion. Developing a record of publication is probably the most important aspect of developing a track record. Often when people are assessing a person from their resume or curriculum vitae (CV) – for example, for a job or in appraising a grant application – they will skim the initial information such as degrees and then flip straight to the list of publications of the applicant. It is thus critical to act strategically when submitting material for publication.

The relative importance of quality and quantity of publications differ depending on the stage of career. Assessors for grants and those on selection committees for jobs look for different things depending on the career stage of the applicant. For instance, an early career researcher or academic would not be expected to have 10 or 15 papers in leading journals. In reality, early career people often have no publications in top journals and assessors and selection panels understand this. What these panels often look for is potential. In these situations, the adage ‘something is better than nothing’ is highly appropriate. Panels look for ‘indicators’ or ‘flags’ that an applicant has potential, and actual publications (no matter what they are) are preferred to none. An applicant who has published several conference papers and maybe has a journal article in a third tier journal will be preferred to one who has no publications.

Getting journal articles into top journals can be a frustratingly long process. The review process for top journals is particularly rigorous and the research on which an article is based must be of high quality. The time between commencing research and having it published in a top journal can be six or seven years and sometimes longer. Such delays are less critical for established researchers because they invariably have a number of projects running simultaneously and which are at different stages of completion. For an early career researcher, presentation of preliminary research results at conferences is an effective way of obtaining publications.

In the case of early career researchers the

balance between quality and quantity of publications is strongly in favour of quantity. As stated before – something is better than nothing. This does not mean that quality is not important – it simply reflects the fact that quality publications take time to produce and have published. It is important for early career researchers to produce some publications in the intervening period. A reasonable target is to produce at least two published papers a year, or more if they are multi-authored.<sup>5</sup>

Quality and type of publications become increasingly important with more senior positions, particularly in faculty positions. In the most senior positions, such as Associate Professor and Professor, quality is critical. Quantity is also important but more as a necessary minimum amount.

In Australia there is some degree of conflicting messages being sent in terms of quality versus quantity of publications. Promotions committees place a strong emphasis on quality of publications, particularly at the more senior levels. This conflicts with the funding formula for universities, which draws no distinction between the quality of refereed publications. The situation is different in the UK where much more emphasis is placed on the impact of research and this is how universities are assessed. Academics are assessed on the impact of their top articles, not on volume of publication.

## 8. ASSESSING THE QUALITY OF JOURNALS

Since journals vary in standing, it is worth spending some time exploring journal quality in more detail. Publishing in particular journals carries a substantial amount of prestige. How then does one gauge how ‘good’ a journal really is? Some suggestions are now made on how to determine the quality of journals, with specific comment on key forestry journals.

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<sup>5</sup> The average number of published papers per person in schools of the University of Queensland is between one and two (based on a count of 1/n papers when there are n authors).



### **'Quick and dirty' guides**

The simplest guide to what journals are best to publish in is to look at the journals cited in the references of one's paper. In any field there are often a number of key articles that are regularly cited – the journals in which these are published are usually the leading ones in the field.

A reasonable guide to the quality and impact of a journal is to look at who publishes it. Journals published by academic publishers such as Springer Verlag, Cambridge University Press, CABI, Blackwells, Urban and Fisher, and Elsevier are generally of a high standard and have a high wide readership and impact because of the distribution and marketing support of the publishing houses. Journals published and distributed by professional organizations and University departments are much more variable in quality and impact.

Another way of gauging what journals are highly regarded is to look at what other people in your field consider to be important. For instance, an excellent guide to what forestry journals are highly regarded in the USA can be obtained by looking at the profiles of US forestry faculty contained in the various web pages of leading forestry departments. The practice in the USA is for staff to list only their high quality or most significant publications in the lists. A quick perusal of these pages provides a sound indication about what journals are highly regarded. For instance, faculty commonly highlight *Forest Science*, *Forest Ecology and Management*, *Canadian Journal of Forest Research* and the *Journal of Forestry*. Publications in journals such as *Society and Natural Resources*, *Soil Science Society of America Journal* and *Forest Products Journal* are also commonly listed.

### **Journal citation and impact indices**

One of the best – and certainly the most objective – measure of the quality and impact of journals is provided by citation and impact statistics. The ISI Journal Citation Reports are the leading source of information about citation rates and impact of journals. This is a web-based service

which can be found at <http://jcrweb.com//>. Two databases are available, one for science journals and the other for social science journals. Within these databases, journals are further classified in subject categories. 'Forestry' is one of the discipline areas in the biological sciences. Within the social sciences list is 'Environmental studies'. Information on citation rates and impact of 29 journals is available within the forestry group (Table 1).

The journals can be sorted in order of total number of citations and impact factor. Figures 1 and 2 provide screenshots of the ISI JCR for forestry journals demonstrating sorting in total cites (i.e. citations) and impact factors. These rankings provide an effective guide of the top journals in a particular field and hence the best ones in which to publish. Importantly, reference can be made to the ranking of the journal to justify statements about its quality when preparing a CV or grant application.

Journals can also be sorted on the basis of Impact Factor, Immediacy Index, Cited Half Life and Citing Half Life (Figure 3). Details of the basis of how these indices are derived is provided in Figure 4.

## **9. SEEING IT THROUGH**

Bringing a paper to publication stage can be a long and frustrating process, and calls for considerable persistence. Some highly original thinkers and capable researchers move on to the next topic too soon, and don't do the 'hard yard' in report writing. Even when a paper is written and is suitable for a journal, this is not the end of the story. The 80%: 20% rule should be kept in mind: finishing off the last 20% of a paper production process takes 80% of the effort.

Notably, in publication success breeds success. When a researcher has a strong track record, invitations to contribute chapters in books and papers for regular and special issues of journals are likely to follow.

Table 1. Forestry journals listed in the ISI Journal Citation Reports

Abbreviated journal title	Year 2000 total cites	Impact factor	Immediacy index	Year 2000 articles	Cited half-life
AGR FOREST METEOROL	2891	1.588	0.950	141	7.8
AGROFOREST SYST	824	0.918	0.250	60	5.8
AI APPLICATIONS	87	0.500	99.999	0	
ALLG FORST JAGDZTG	141	0.239	0.031	32	6.9
ANN FOR SCI	53	0.576	0.203	69	
ANN SCI FOREST	757	1.897	99.999	0	6.4
CAN J FOREST RES	5597	0.955	0.117	206	9.1
EUR J FOREST PATHOL	494	0.696	99.999	0	9.5
FOREST CHRON	555	0.417	0.203	64	8.0
FOREST ECOL MANAG	3231	0.982	0.172	332	5.5
FOREST PATHOL	2		0.000	34	
FOREST PROD J	953	0.329	0.041	121	>10.0
FOREST SCI	2073	0.966	0.200	15	>10.0
FORESTRY	477	0.698	0.068	44	>10.0
FORSTWISS CENTRALBL	132	0.263	0.036	28	10.0
HOLZFORSCHUNG	1500	0.981	0.093	108	8.2
IAWA J	426	0.738	0.065	31	9.1
INT J WILDLAND FIRE	188	0.400	0.000	21	6.0
J FOREST	1140	0.451	0.120	25	>10.0
J VEG SCI	1924	1.589	0.085	82	5.7
NAT AREA J	330	0.452	0.095	42	6.8
NEW FOREST	184	0.417	0.027	37	5.6
PLANT ECOL	500	0.822	0.054	112	3.2
SCAND J FOREST RES	660	0.519	0.155	71	7.7
SILVAE GENET	660	0.312	0.074	27	>10.0
TREE PHYSIOL	2292	2.052	0.436	140	5.2
TREES-STRUCT FUNCT	735	1.122	0.191	47	6.0
WOOD FIBER SCI	585	0.446	0.096	52	>10.0
WOOD SCI TECHNOL	673	0.291	0.059	34	>10.0

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MARKED JOURNAL LIST

Sorted by: Total Cites [SORT ASCENDING] [JOURNAL TITLE NUMBERS]

Journals 1 - 20 (of 29) Page 1 of 2

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to full journal information)</i>	ISSN	2000 Total Cites	Impact Factor	Immediacy Index	2000 Articles	Cited Half life
☑	1	<a href="#">CAN J FOREST RES</a>	0045-5067	5597	0.955	0.117	206	9.1
☑	2	<a href="#">FOREST ECOL MANAG</a>	0378-1127	3231	0.982	0.172	332	5.5
☑	3	<a href="#">AGR FOREST METEOROL</a>	0168-1923	2891	1.588	0.950	141	7.8
☑	4	<a href="#">TREE PHYSIOL</a>	0829-318X	2292	2.052	0.436	140	5.2
☑	5	<a href="#">FOREST SCI</a>	0015-749X	2073	0.966	0.200	15	>10.0
☑	6	<a href="#">J VEG SCI</a>	1100-9233	1924	1.589	0.085	82	5.7
☑	7	<a href="#">HOLZFORSCHUNG</a>	0018-3830	1500	0.981	0.093	108	8.2
☑	8	<a href="#">J FOREST</a>	0022-1201	1140	0.451	0.120	25	>10.0
☑	9	<a href="#">FOREST PROD J</a>	0015-7473	953	0.329	0.041	121	>10.0
☑	10	<a href="#">AGROFOREST SYST</a>	0167-4366	824	0.918	0.250	60	5.8
☑	11	<a href="#">ANN SCI FOREST</a>	0003-4312	757	1.897		0	6.4
☑	12	<a href="#">TREES-STRUCT FUNCT</a>	0931-1890	735	1.122	0.191	47	6.0
☑	13	<a href="#">WOOD SCI TECHNOL</a>	0043-7719	673	0.291	0.059	34	>10.0
☑	14	<a href="#">SCAND J FOREST RES</a>	0282-7581	660	0.519	0.155	71	7.7
☑	14	<a href="#">SILVAE GENET</a>	0037-5349	660	0.312	0.074	27	>10.0
☑	16	<a href="#">WOOD FIBER SCI</a>	0735-6161	585	0.446	0.096	52	>10.0
☑	17	<a href="#">FOREST CHRON</a>	0015-7546	555	0.417	0.203	64	8.0
☑	18	<a href="#">PLANT ECOL</a>	1385-0237	500	0.822	0.054	112	3.2
☑	19	<a href="#">EUR J FOREST PATHOL</a>	0300-1237	494	0.696		0	9.5
☑	20	<a href="#">FORESTRY</a>	0015-752X	477	0.698	0.068	44	>10.0

Figure 1. Sorting on basis of total cites

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MARKED JOURNAL LIST

Sorted by: Impact Factor [SORT DESCENDING] [JOURNAL TITLE NUMBERS]

Journals 1 - 20 (of 29) Page 1 of 2

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to full journal information)</i>	ISSN	2000 Total Cites	Impact Factor	Immediacy Index	2000 Articles	Cited Half life
☑	1	<a href="#">TREE PHYSIOL</a>	0829-318X	2292	2.052	0.436	140	5.2
☑	2	<a href="#">ANN SCI FOREST</a>	0003-4312	757	1.897		0	6.4
☑	3	<a href="#">J VEG SCI</a>	1100-9233	1924	1.589	0.085	82	5.7
☑	4	<a href="#">AGR FOREST METEOROL</a>	0168-1923	2891	1.588	0.950	141	7.8
☑	5	<a href="#">TREES-STRUCT FUNCT</a>	0931-1890	735	1.122	0.191	47	6.0
☑	6	<a href="#">FOREST ECOL MANAG</a>	0378-1127	3231	0.982	0.172	332	5.5
☑	7	<a href="#">HOLZFORSCHUNG</a>	0018-3830	1500	0.981	0.093	108	8.2
☑	8	<a href="#">FOREST SCI</a>	0015-749X	2073	0.966	0.200	15	>10.0
☑	9	<a href="#">CAN J FOREST RES</a>	0045-5067	5597	0.955	0.117	206	9.1
☑	10	<a href="#">AGROFOREST SYST</a>	0167-4366	824	0.918	0.250	60	5.8
☑	11	<a href="#">PLANT ECOL</a>	1385-0237	500	0.822	0.054	112	3.2
☑	12	<a href="#">IAWA J</a>	0928-1541	426	0.738	0.065	31	9.1
☑	13	<a href="#">FORESTRY</a>	0015-752X	477	0.698	0.068	44	>10.0
☑	14	<a href="#">EUR J FOREST PATHOL</a>	0300-1237	494	0.696		0	9.5
☑	15	<a href="#">ANN FOR SCI</a>	1286-4560	53	0.576	0.203	69	
☑	16	<a href="#">SCAND J FOREST RES</a>	0282-7581	660	0.519	0.155	71	7.7
☑	17	<a href="#">AL APPLICATIONS</a>	1051-8266	87	0.500		0	
☑	18	<a href="#">NAT AREA J</a>	0885-8608	330	0.452	0.095	42	6.8
☑	19	<a href="#">J FOREST</a>	0022-1201	1140	0.451	0.120	25	>10.0
☑	20	<a href="#">WOOD FIBER SCI</a>	0735-6161	585	0.446	0.096	52	>10.0

Figure 2. Sorting on the basis of impact factor

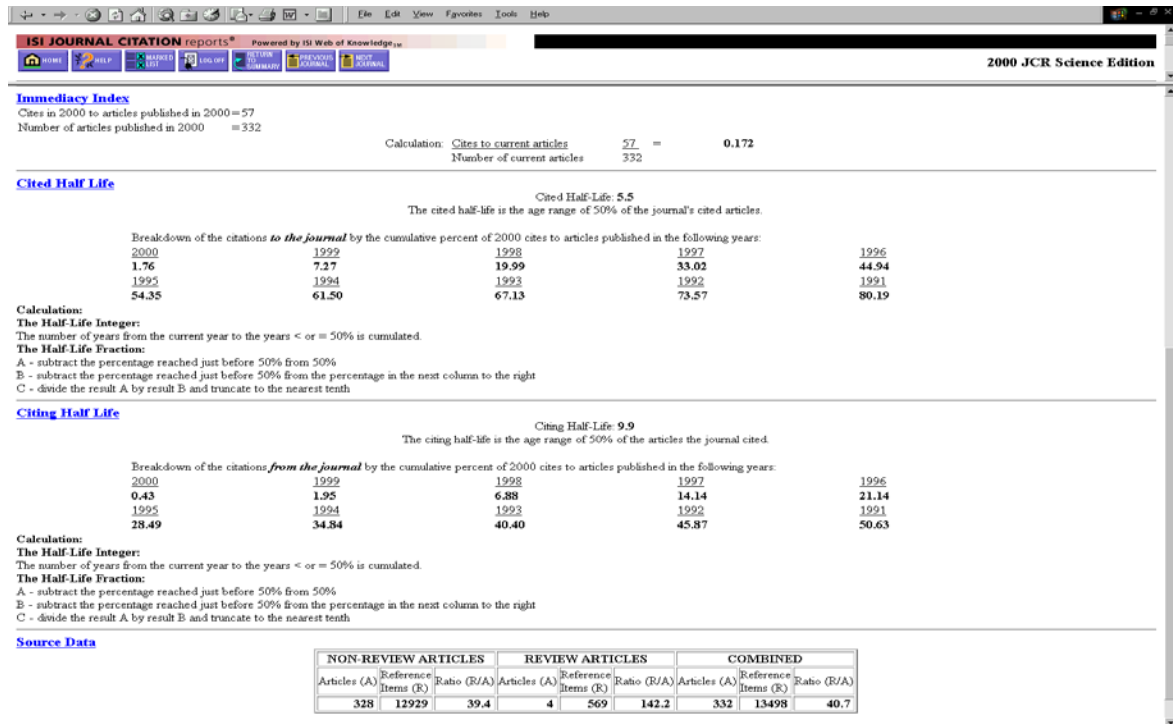


Figure 3. Some citation details for an individual journal (Forest Ecology and Management)

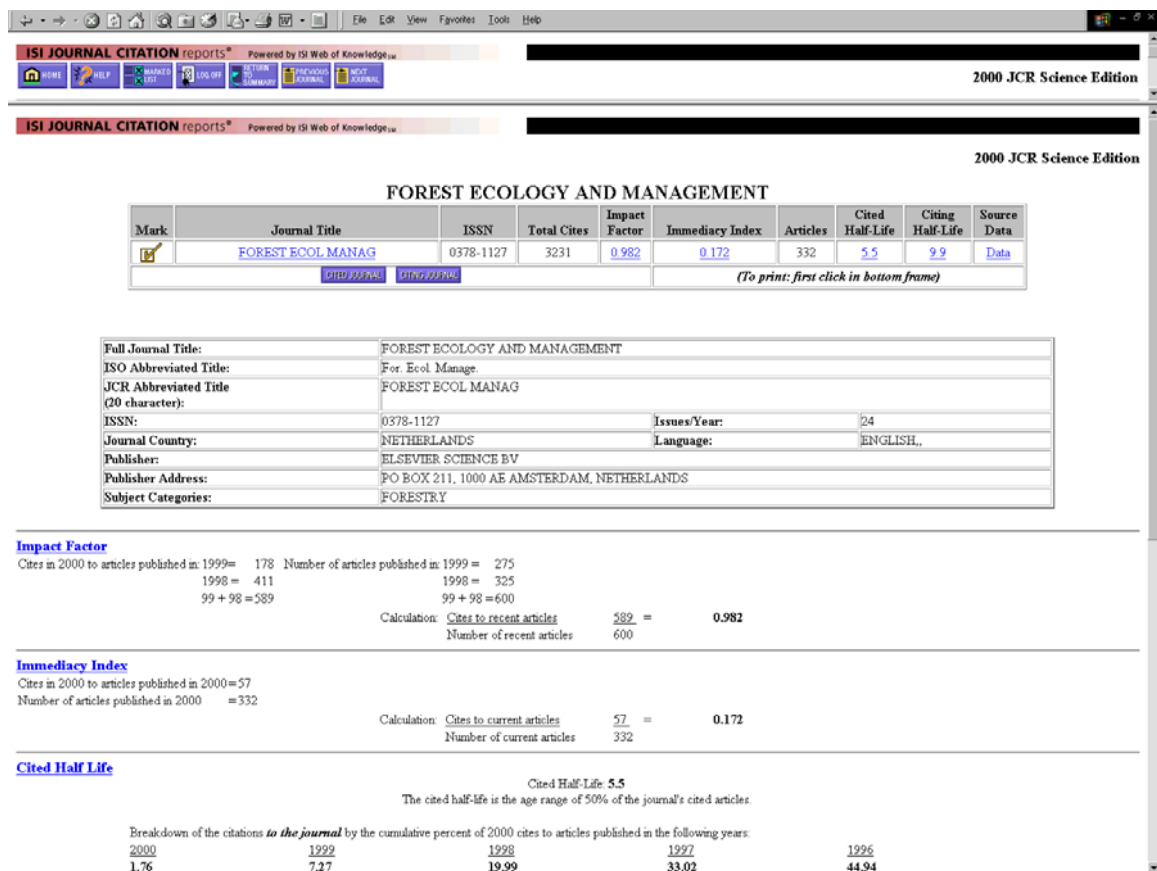


Figure 4. The basis of calculation of some key citation indices

## 10. SOME JOURNALS TO TARGET FOR FORESTRY-RELATED ARTICLES

The following journals are some of the ones which would seem appropriate for forestry research, particularly with a systems or socio-economics orientation.

Agricultural Systems  
 Australian Forestry  
 Annals of Tropical Research  
 Australian Journal of Environmental Management  
 Australian Journal of Agricultural and Resource Economics  
 Ecological Economics  
 Economic Analysis and Policy  
 Economic Geography  
 Forest Ecology and Management  
 Forest Policy and Economics  
 Forest Science  
 Journal of Environmental Management  
 Journal of Forest Products  
 Journal of Forestry  
 Journal of Sustainable Forestry  
 Natural Resources Forum  
 Small-scale Forest Economics, Management and Policy  
 Society and Natural Resources

## 11. SOME REFLECTIONS AS A JOURNAL EDITOR

A number of observations may be made from experience as a journal editor. The following comments arise from four years experience as editor of *Economic Analysis and Policy* (for the Economic Society of Australia Inc. – Queensland Branch). This journal, which has been published for more than 30 years, is issued twice yearly, with occasional special issues, individual issue typically containing about seven papers plus several book reviews.

### The paper processing system

When submitting papers to a journal for publication, it is desirable to have a clear understanding of the paper processing system adopted by the journal. The following is a typical example of how this process works.

When papers are received, the editor will usually have a quick look at them, and perhaps seek an opinion of a colleague or

member of the editorial committee. An editor can often judge quite quickly the suitability of a paper and the probability of favourable reviews. If they judge the paper is not suitable for publication, even with some further work, then the editor is likely to make an executive decision to reject the paper and advise the author accordingly. This could occur for example if the research reported lacks substance, the analysis appears weak, or the literature review is absent or weak.

In other cases, the editor may correspond with the author and say the paper has potential but is not suitable to send to review in its current form, e.g. it may be too long, too unsatisfactory in format (no Abstract, inadequate Introduction), or containing too much algebra for the journal audience. If the editor is generous with their time, they may provide considerable feedback at this stage, even to the extent of providing various suggested text changes.

If these hurdles are passed, the editor or their committee will identify suitable reviewers, and ask them if they are prepared to review the paper for the journal, typically sending the full paper or the abstract to assist them to make a decision.

In due course, the reviewer's comments are received. These may be to reject the paper, or that the paper is suitable for publication provided specified changes are made. The review comments are usually forwarded unattributed to the authors. If the reviews are mixed, the editor must make a decision about whether to proceed with the paper. If the decision is to proceed, then the editor will provide an indication to the authors of what changes they think are needed for the paper to be satisfactory.

Once revisions are made to the paper, the editor may decide themselves whether these changes are adequate, or may send the revised paper to the reviewers and ask them if they are satisfied with the changes. In the latter case, if a reviewer is still unhappy with the paper, the process may be prolonged.

Hopefully, the paper is eventually judged to be acceptable, at which stage the editor may require wording changes, more

complete details on references. They may also request camera ready copy of complex graphics or computer screen images, and may discourage coloured diagrams because they can lose definition in black and white. The paper eventually goes to the typesetter, after which page proofs are produced and forwarded to the authors. Once all authors have corrected their page proofs, the typesetter makes final corrections and the issue is printed.

As indicated by these notes, paper processing can be a long and tortuous process.

### **Submitting papers**

Journals typically provide instructions to authors of how papers are to be formatted. Often about four copies are to be provided, which must follow quite detailed formatting instructions. Presumably, the copies are date stamped on receipt, one copy is retained by the editor, one is filed away, and two are posted to reviewers. This is a rather archaic system, and nowadays it is generally more convenient if a single copy is submitted as an email attachment, not necessarily in a precise format, and copies are emailed to reviewers. The formatting according to in-house style can be then be done if and when the article is accepted. It is worth asking the editor if this method of submission is acceptable.

### **Contacting the editor**

Some authors are loath to contact the editor after a paper is submitted. (Others phone them repeatedly.) In general, if there has been no response from the editor (other than an acknowledgment of receipt of a paper) after a few months, it is a good idea to contact the editor and inquire about progress of the paper. This of course will depend on the journal. Some have long turnaround times, but the authors are rather precious and will not respond well to contact. But generally, a follow-up is a good idea, the check that the editor has not lost the paper, or (more likely) failed to chase up slack reviewers.

### **Responding to reviewer's comments**

When the editor indicates a paper will be

considered further subject to making specified revisions, it is critical for the authors not only to make these revisions or provide good reasons for not doing so (the general rule is that 'the reviewers are always correct'), but also to provide a list of the changes they have made.

### **Handling page proofs**

Page proofs may be provided as hard copy or in electronic form. At this stage only minimal and essential changes are acceptable. Generally, the author should forward hard copy with clearly marked changes, although if the changes are minor it may be acceptable to advise by email.

### **What not to do**

There are a number of things authors can do which will upset editors. In that it is wise to develop a friendly relationship with an editor, with a view to submitting further papers, these need to be kept in mind.

\* Simultaneous submission of papers to more than one journal is unacceptable behaviour. There is a lot of work for editors and reviewers in processing a paper, and if the paper is withdrawn from one journal to be published elsewhere or they become aware that it is being considered by another journal, then your name is likely to be remembered should you submit to that journal again.

\* Submitting a paper that is substantially the same as has been published elsewhere (by the contributor or by someone else) is also unacceptable. A 'repeat' paper may be detected by the reviewers, in which case the editor will probably say cautiously that the paper cannot be accepted because it is too similar to something that is published elsewhere. An even worse outcome (for the contributor and journal) would be for the paper to be published and then for someone to submit a comment paper pointing out the lack of originality.

\* Submitting a paper which contains many views or subjective statements but lacks references can come across as presenting the author's personal philosophy of the world. Unless the author is quite brilliant, it is probable that the ideas have already

been thought of by others, and that a literature exists on them.

\* Other things which will upset editors include: failure to provide a rejoinder explaining what changes have been made in response to reviewers' comments; failure to shorten a paper when the direction is that it must be cut down in length; failure to provide promptly camera-ready graphics when this is requested; long turn-around time with page proofs.

### **Length of papers**

How long should the paper be? This will vary between disciplines. In the physical sciences, papers as short as about 2000 words are often published. Longer papers are acceptable in the social sciences, though manuscripts longer than about 7000 words approximately are generally not welcomed by editors. They take up too much space in the journal, such that one long paper may displace two shorter ones. They test the endurance of readers. They may invoke the response that the editor would be prepared to consider a shortened version. A length of 5000-6000 words is probably more optimal. Often, journal instructions will indicate, after a statement about journal articles, that 'shorter contributions are welcome'. Sometimes there is a separate section in journals for shorter comments.

### **Some further observations**

A few further observations may be made concerning dealing with journals:

\* Bear in mind that the editor is always looking for suitable papers to publish. With increased advertising of journals, including advertising on web sites, the number of papers submitted is increasing (increasing demand for publication), but there have been various new journals launched in the last few years, so the supply of journal outlets is increasing.

\* In general, papers should not contain a large amount of graphics. These make a paper look too much like a slide show. Tables provide more information than graphs, because with tables numbers are

known exactly.

\* Don't wait for the editor to get back to you, if the time delay is too great. They may have lost the paper, or not got around to chasing up a slack reviewer.

\* Choice of reviewers can make or break a paper. The author is unlikely to have any say over choice of reviewers, but in some circumstances can make suggestions. In the case of invited papers, or converting workshop papers into journal articles, sometimes a deliberate choice of reviewers is made such that they will not be 'unfriendly'.

\* The focus or editorial policy of the journal must be kept in mind. Some papers no matter how good simply are not suitable for the journal. 'Swiggle papers' (highly mathematical, with lots of Greek characters) should be sent to 'swiggle' journals. Sometimes an editor will say it is necessary to 'Move the maths to an appendix, and expand the policy section'.

\* It can be difficult to obtain acceptances for 'review' articles, as distinct from results of original research.

\* In general, when a paper presents results of a survey, some hypotheses and statistical analysis would be expected, together with some test statistics and diagnostics to justify assumptions.

\* Journals are generally short of book reviews. Unsolicited book reviews are usually welcome.

## **12. CONCLUDING COMMENTS**

The publication record is invariably regarded as a key criterion of ability of researchers, including those working within universities. Different publication strategies will work best different people, and it is necessary to think strategically about having research findings published. To some extent, success is a matter of persistence, and skills can only be developed by experience. The observations and suggestions presented here are designed to stimulate further thought about publication strategies.

