



### **SCIENCE POLICY GUIDELINE 3**

#### **Publications, Reports and Manuscripts**

#### **Introduction**

The practice of the Department of Parks and Wildlife is that express approval must be obtained to publish research findings and educational articles. The authority to approve publications has been delegated to the relevant Divisional Coordinator. Approval to publish is sought by submitting electronically an Approval to Publish form with a copy of the publication to the Divisional Coordinator, and the Biometrician and/or the Herbarium Curator if applicable. Approval to publish is required for all publications including divisional reports and other Parks and Wildlife forms of publication.

The purpose of this process is to ensure that:

- all publications and reports produced are of high quality and are assessed for policy implications prior to publication;
- papers are published in appropriate outlets, especially (where possible) in high standard, widely-circulated, refereed journals;
- publicity material including published reports, brochures, pamphlets etc. conform to government and corporate design and layout (consult Public Information and Corporate Affairs Branch for advice).

#### **Approval to publish**

The Department will always support Parks and Wildlife staff who wish to publish research as long as it is sound science and/or up-to-date information. However, research results acquired while employed by the Department or while using the Department's funds are the property of the Department and a draft paper or report does not become an official Department document until such time as it has been approved for publication via the Approval Form.

Often the results of Parks and Wildlife research are politically sensitive, because they indicate that previously unknown environmental problems exist or that past policies or practices need modification. (There's nothing wrong with this - indeed it is the function of research to evaluate threats to the environment, measure the effectiveness of management and develop solutions). Lobby groups may want to use research results to obtain action by Government or, sometimes, simply to embarrass policy-makers or politicians. For these reasons it is essential that the Department has the opportunity to review research findings and their implications before they are widely released. Also it is essential that people who wish to use knowledge have the appropriate context for that knowledge.

Some publications will have no or minor management or policy implications. In these cases there will be little or no delay in obtaining approval to publish if the paper is of sufficient quality (sound science etc.) and the target journal is appropriate. In other cases there may be major management or policy implications. These should be considered by managers and policy-makers before approval to publish a final draft is sought and, again, there will be little or no delay. If this is not done there may be some delay in assessing and possibly amending the publication.

It is also recognized that many publications arise from collaboration with one or more external colleagues. In such arrangements Parks and Wildlife input may only result in junior authorship in any publications, and the internal review process will be undertaken, as is appropriate, within the senior author's organization. In such situations, Parks and Wildlife officers are expected to keep track of the progress of any such publications and complete the Approval to Publish Form as appropriate, and attach a draft manuscript.

Authors intending to submit a paper to Parks and Wildlife journals, Conservation Science Western Australia and Nuytsia, must also obtain approval to publish. Approval to publish and submission of the paper to the journal editor are separate processes.

### **Publication Process**

Scientists are sometimes not clear when to publish. Some err on the side of publishing too much preliminary work and later have to admit that their initial results did not hold up over a longer time frame. Others insist on dotting every *i* and crossing every *t* before publishing and tend to publish too little and too late. Either of these extremes should be avoided, and advice from more experienced scientists or managers should be sought if necessary.

It is expected that science undertaken in the Department is published, preferably in high quality, refereed journals. Publication in the Parks and Wildlife journal, Conservation Science, should be restricted to papers that, because of their length or limited relevance outside Western Australia, may not be accepted by national and international journals. If in doubt, seek advice from your Divisional Coordinator. Similarly, educational and/or information papers should be published in quality, reputable journals or magazines. Publication in Divisional reports is an interim measure to facilitate reporting of results and their interpretation to Parks and Wildlife Staff or funding agencies. It is not meant to replace publication in a refereed journal.

Electronic media are increasingly being employed for publication. Parks and Wildlife supports the use of all appropriate media in order to publish the work of its staff. Refer to Parks and Wildlife's Online Publishing Policy Statement for further information on appropriate use of electronic media.

The first step in publishing research results is usually the preparation of a draft manuscript. You should be careful with copies of drafts. There is a general rule on copying drafts that should be followed. Drafts, clearly marked as *draft-in-confidence*, may be sent to colleagues, both within and outside the Department, for critical appraisal but copies may not be supplied to anyone else, including political or lobby organizations, without the approval of the relevant divisional Director. It is not ethical for colleagues to copy or use information in drafts supplied to them for review. Obviously, you should follow the journal rules when you are asked to review or referee a manuscript.

### **Assignment of copyright or licence to publish**

For all papers published by officers of Parks and Wildlife, copyright is held by the State of Western Australia, not by the Department or the individual officer.

### **Statistical analysis**

It is most important that statistical analysis of the data collected is sound. If improperly analysed papers were to enter the scientific literature, Parks and Wildlife's (as well as the scientist's) reputation and credibility would be exposed to attack. It is therefore sensible to heed the following good advice (taken from Maindonald, *N.Z. J. Agr. Res.* 35: 121-142, 1992):

- describe the statistical analysis in enough detail that another scientist could reproduce the analysis in another data set;

- include standard errors or standard deviations (or their equivalent) and sample sizes wherever relevant. Where there are multiple error strata, be sure to quote the SE that is relevant to the comparison made;
- provide the reader with some reasonable minimum assurance that coarse checks of the assumptions underlying the statistical methods have been made;
- ensure that the statistical analysis correctly reflects the experimental and sampling designs;
- ensure that replication is at the level of whole treatment units, and analyse accordingly.

### **Explanatory Note – Approval Form**

Type of submission:

- Paper for external journal
- Paper for Conservation Science WA
- Paper for *Nuytsia*
- Book chapter
- Book
- Conference paper
- Conference paper - abstract only
- Workshop paper
- Interim Grant Report
- Final Grant Report
- Text for a poster
- Article for *Landscape*
- Article for external popular magazine (e.g. *Geo*, *Australian Geographic*, *Australian Natural History*)
- Pamphlet, brochure, guideline, published report etc.
- Any other publication with a DEC author identified in it
- Web pages and other electronic media

**Note: book reviews are excluded.**