PREPARING INSTRUCTION GUIDES FOR PUBLICATION IN THE DEPARTMENT OF CONSERVATION TECHNICAL SERIES

by

Ian W. Mackenzie

Cataloguing-in-Publication data

CONTENTS

PREPARING INSTRUCTION GUIDES
FOR PUBLICATION IN THE
DEPARTMENT OF CONSERVATION TECHNICAL SERIES

by
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ABSTRACT

The publishing of a technical instruction guide is the culmination of a carefully planned project. The initial stages involve project and budget planning, when the co-ordinator and writer(s) are chosen. The brief for the project will cover the information content of the guide, the target audience, and the work involved (writing, refereeing, editing, proof-reading, indexing, and publishing).

Hints on the arrangement of the material can help authors acheive a logical sequence. The text will require polishing to acheive clear, unabiguous writing. The general sequence of the component parts of a technical instruction guide are well-known. Much time can be saved by using some of WordPerfect's facilities for composing headings, contents lists, tables, and special boxes. The typesetting and lay-out parameters which will govern books published in the *Department of Conservation Technical Series* also include details of the alternative formats available: A4 Portrait, A5 Portrait, and A4 Landscape.

1.   AIMS AND OBJECTIVES

1.1   Aims
The aims of this publication are to
• Set standards for the content and quality of technical instruction guides.
• Define the *Department of Conservation Technical Series* and the two principal formats used for guides published in that series.
• Give advice on the preparation and publishing of technical guides, whether these are to be published in the regions, or through Science Publications, Tory Street.

1.2   Purpose of a technical instruction guide
A technical instruction guide is compiled to provide up-to-date, detailed scientific and technical information on a specific subject, and to a particular audience. The information will be presented to potential users in a form that facilitates use in conservation activities. These guides will frequently be "how to do it" instruction handbooks for use "in the field".

1.3   New series
DoC scientific reports are generally produced in the *Science & Research Series.* For works of a technical, instructional, or "how-to-do-it" nature, which are not appropriate to this series a *Department of Conservation Technical Series is* proposed. The format of technical guides will vary according to subject and need, and the format and presentation of each book will be decided on that basis. Most books published in the *Technical Series* will be either A4 or A5 page size (format details are in **Sections 7 & 8** below).

2. PREPARATION - THE INITIAL STAGES

The type and standard of publication required is determined by identifying the target audience and the perceived demand. Some planning and investigation is needed, therefore, **before** the guide is written.

2.1 Investigation

It is essential to do enough "market research" to determine the actual need for the technical guide. Production (or revision) should be governed by the target audience and projected demand, and not be merely a confirmation of a process, or continuation of a research programme already in place'.

2.2 Co-ordination

Once the need has been demonstrated, the project requires a co-ordinator(s), who must have considerable expertise in the subject field. Co-ordinator(s) have four main tasks:
- Lay down specific terms of reference.
- Organise the compilation of the necessary information.
- Choose the writers.
- Organise the peer review process.

2.3 Writers

The choice of the writer(s) is extremely important for effective communication and for the Department's credibility.   Each writer must have:
- Ability to analyse and arrange the data logically.
- Thorough knowledge of the subject of the guide.
- A gift for teaching through the written word.
- Skill to write fluently and precisely.

To be most effective, co-ordinators should also be competent in all of these areas. If they are **not** competent writers they should delegate the task of writing to others.

2.4 Refereeing protocol

During planning each guide proposal will contain a protocol for the peer review of the completed manuscript. This protocol will be provided by the guide co-ordinator, and approved by the divisional manager or conservator as part of the project approval.

As well as **subject-specialist** referees to consider the content, there should be **user** reviewers to consider how well the guide works and if it can be understood by those it proposes to instruct.

2.5 Notification

At this planning stage the guide co-ordinator will advise the Science Publications Co-ordinator of the project proposal. Even if the guide is **not** to be published through Science Publications, copyright, legal deposit, ISSN, ISBN, and series number technicalities have to be completed during the publication process, and the proposed publication needs to be included in forward planning.

2.6 Budget and project approval

A budget for the guide should be developed early.   Any funding assistance and/or sponsorship should be identified while the design is still flexible and able to be adapted

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' This latter type of publication is more properly published in the *Science & Research Series.*

to meet market or sponsor needs. If the publication is to be in the *Technical Series,* it needs to be produced in collaboration with Science Publications Co-ordinator, and other interested groups. The publication of a technical guide will become the final output of a project, so the outline and publication plan are essential parts of any project proposal. As such, publication proposals require to be approved in tandem with the project as a whole.

3. DECIDING THE CONTENT OF AN INSTRUCTION GUIDE

3.1 Terms of Reference

The specific objectives of a guide proposal must be set down as Terms of Reference. These will define in precise terms:

- The purpose of the guide.
- Scope.
- Who will use it (i.e., the target audience).
- The level of knowledge of the intended users, and hence the level of writing required.
- The procedures to be laid down in the guide.
- Information needed to write the guide.
- Will it require an Index? If so who will prepare it?

3.2 Subject Information

The subject material for a guide will come from many sources. The principal ones are:

Existing job documentation - This includes any previous editions of the guide, circulars on the subject, desk files, job descriptions and publications from other New Zealand or overseas organisations.

Current literature on the subject - This includes any published sources for new developments, relevant national and international standards, laws, and statutes.

Recognised authorities - Sources both inside and outside the department, who should either be co-opted on to the production team, or consulted regularly. For most technical instruction guides this is likely to be the principal source of information.

3.3 Copyright

This is a legal method of protecting an author's work from misuse. The owner of the copyright is usually the writer, but may be the employer, if the writer is working for a salary. Copyright attaches both to information one re-uses and to new published works.

Use of other copyright material - Use of other copyright material is only permissible with the **written** permission of the owners. The imprint (reverse of title) page of a publication will normally identify the owner of the copyright, but the absence of this information does **not** mean that a book is unprotected. Guide author(s) **must** ensure that they never infringe copyright when quoting from other publications or reproducing illustrations; failure to do this could lead to legal action.

Copyright permission - One can generally use extracts from a publication for purposes called "fair dealing". That is, research and study, criticism and review, or educational purposes. However, author(s) must obtain **written** permission from the copyright owner to reproduce "substantial extracts" - a commonly accepted rule of thumb for this is "extracts more than 900 words long". Paraphrasing is **not** accepted as a legal defence against breach of copyright. Reproduction of illustrations (photographs, drawings, diagrams, charts, or maps) usually requires written permission and a published acknowledgement of the copyright owner.

Copyright of a new technical guide - Publication as a volume in the Department's *Technical Series* will normally ensure that the copyright of the new book remains with the Crown (in the name of the Department of Conservation). This is so, even if some of the data it contains belongs to other copyright holders. In very rare instances where the Department has a legal agreement with other parties, the copyright may remain with another person, or organisation. For example, where the Department has contracted an outside author to write the guide, or the Department publishes the book on behalf of another organisation.

3.4 Index or Contents?

For quick access to a book which contains a lot of new ideas or lengthy instructions, an index is highly desirable. However, an index may not be necessary in a brief, straightforward document. You may decide that a detailed contents list is all that is needed.

If an index is required, it is necessary to identify who will prepare it, at an early stage in the planning. If it is to be the author(s) task, it must be included in his brief and budget; if a separate indexer is to be hired, the timetable for publication and the project budget must allow for the work.

4. ARRANGEMENT OF THE MATERIAL

No one can sit down and churn out good, clear English first time around. All competent writing is the result of a series of ideas, compilations, drafts, and polishing. However, the following steps will help to reduce the amount of re-working required to produce a good text.

4.1 Collation
The collation of the data gathered by the author is the first step. The source material should be read and summarised, and these summaries in turn sorted into appropriate groups. If any information is verbal, it must be written down immediately and, properly credited: human memory is too unreliable for gaps to be filled accurately at some time in the future.

4.2 Concept outline
The concepts found in the summaries should now be arranged in a logical sequence to form an outline of the guide. This outline must be regarded as tentative, for it will be modified as the draft develops.   There are several possible approaches to the arrangement of material:
Chronological - for example, a history of the topic.
Structural - where one topic depends on a predecessor being explained.   Most instructional guides have this form.
Causal - working from causes or policies to actual procedures, (e.g., a description of a disease and its treatment).
Problem-centred - working towards a result with alternative approaches. Many policy-related documents have this form, and some instruction guides will provide new approaches or variations on old ones.

4.3 Logical sequence
At this stage the summaries of the data collected for the guide are slotted into the outline to flesh out the narrative. The terms of reference are then checked to make sure no extraneous material has crept in, and the first draft is written around this structure. During this process, don't worry about the style or final appearance: just keep spilling out the ideas, writing them down, and assess them again later.

4.4 Additional explanations
In an instruction guide there may be the need for detailed instructions, background history, or additional information which could break up the flow of the main text and make it hard to follow. A system of TEXT BOXES, FOOTNOTES, or marginal notes should be employed to provide this information outside the main narrative (see Section 7., below).

4.5 Time out
Now is a good time to take a rest from writing the manuscript, so one can look at it dispassionately when coming back to it at the start of the polishing process.   Be prepared to write and rewrite the drafts until all ambiguity is removed. Put yourself in the shoes of your readers from the start.   Avoid unjustifiable assumptions about their knowledge, and make difficult aspects of the work clear. Above all, remember to refer to the terms of reference from time to time, so that you don't stray away from the purpose of the guide.

4.6   Be confident

Instruction guides should provide the best available, and most up-to-date approach to problem solving. The approach that is best suited will depend upon a mix of factors: practicality, cost, scientific credibility, etc. The author(s) must use their best judgement and give confident recommendations, even though the methods and solutions may not be perfect or fully scientifically proven.   Give qualifications if necessary, but do not be half-hearted in stating a recommended approach.

5. CLEAR WRITING

Although instruction guides are a type of technical writing, they have special characteristics.   Because a guide provides information, advice, and/or instructions, it must be clear, concise, simple, and easy to understand. This section will help avoid some of the more common pit-falls in writing instructional material.

5.1   Constraints
Technical guides must be written within the following constraints:
• Consider the **target audience** and pitch the instructions at them. Take account of their education and training.
• Precede the instructions with **any necessary explanation**, especially where a procedure has been changed.
• Do not write without good reason, and **do not pad**.
• **Be direct**, get straight to the point, and use direct positive instructions.
• **Explain procedures completely**, with a series of steps (if they are complicated), but do not miss out any steps.

5.2   Clarity
Generally, the essence of good technical writing is a clarity of expression achieved by using a direct, simple, and precise choice of words and structures.   The advice of George Orwell is still pertinent:
• "Never use a metaphor, simile, or other figure of speech which you are used to seeing in print.
• "Never use a long word where a short one will do.
• "If it is possible to cut out a word, always cut it out.
• "Never use the passive where you can use the active.
• "Never use a foreign word, a scientific word, or a jargon word if you can think of an everyday English equivalent." [*However, this does NOT preclude the use of scientific words where they are necessary for clarity, or are widely understood.*]
• "Break any of these rules sooner than say anything outright barbarous."

5.3   Writing style
Keep it simple   Write as concisely as possible; prefer the simple word to the long winded; avoid repetition and circumlocution.   Make a hit-list of phrases to avoid like "in order to" and "with the result that".   Refer to good guides to clear writing, like Ross-Larsen (1982) and Wilson (1965), which have a list of alternatives.
Be specific - Choose words carefully, and use concrete terms instead of abstract. Avoid imprecise words and phrases like "involved", "area", "field", "level", "a number of".
Use lively verbs - The active voice should be preferred. The use of passive sentence constructions will give rise to the vague and roundabout expressions so beloved by scientists.   Avoid impersonal constructions like "it is hoped that ... It is worth noting that...".
Do not make nouns of good, strong, working verbs - "Let the liquid evaporate" *versus* "allow the evaporation of the liquid".
Watch your modifiers - Be careful with vague modifiers like "very", "rather", and "somewhat". Keep your adverbs as close to their verbs as possible so they can't drift off into another clause. Slim down any clauses made of strings of nouns, (e.g., "the scientific glassware supply situation").
Avoid jargon, vogue words, and cliches - Jargon can be used as a short-cut to communication, but make sure the target audience is completely aware of the meaning

of the terms. If the guide is aimed at a wider, non-technical audience, avoid jargon altogether.

Connect the elements together properly - Avoid any unnecessary shifts in subject, tense, voice, or pointof view that will confuse your readers. Use parallel sentence constructions if ideas are parallel, but do not use them where there is no continuity.

5.4   Grammar traps

Agreement - Make sure your subjects agree with their verbs. Be careful with compound and collective nouns. Pronouns must agree in number and in person with their antecedents.

Position of adverbs - Don't feel rigidly constrained by old "hardy annuals" about splitting infinitives. Use the clearest and most euphonious position for each adverb. In general, an adverb should be placed nearest to the word it governs, especially "only".

Tense - Describe results in the past tense, and use the present tense for instructions, conclusions and generalisations. Be very careful between "advisory" and "mandatory" parts of the guide: mandatory passages (required by law) must use the future "shall", whereas advisory passages use "should" or "can".

Dangling participles - Beware of these! The most common form is an introductory phrase not connected to its subject, for example, "Being diseased, the abattoir refused to accept the animal."

Use the correct word - Certain words in English are frequently misused: "effect/affect", "which/that", "licence(n.)/license(v.)".   If in doubt, refer to the comprehensive list of confusables in Section 5.10 of the Government Printer *Style Book* (1981 or a more recent edition).

5.5   Punctuation

The objective of punctuation is to make the meaning of a passage clear, especially the pauses between groups of words. The various punctuation marks denote different degrees of pause: the full stop is the strongest, followed by the colon, semicolon and comma. There are no hard and fast rules, but the modern trend is to use as little punctuation as possible. The Government Printer *Style Book is* a little old fashioned in this respect, but gives a good guide to the various marks in Chapter 3.

5.6   Sentences

A sentence is the structure which expresses a complete thought, whereas a paragraph contains closely related sentences with similar subjects. Follow the same principles with sentences as with choice of words, that is, keep constructions simple. Especially avoid the long explanatory tail. A good rule of thumb is that the average sentence length should be about twenty words in normal prose. If sentences are too complex, break them up into easily read units. Vary sentence length and structure in paragraphs to avoid monotony. Technical writing often tends to be very turgid and needs all the help it can get to lighten it up.

5.7   Paragraphs and sections

The layout of paragraphs in guides tends to be different from normal prose, because guides are often made up of a series of instructions interspersed with explanatory text. If it is absolutely necessary to have a cross-referencing system, use the decimal style, as in this guide, but be very cautious about using more than three numbered levels. Where there is a series of sequential steps, number these in the left-hand margin. If there is a series of non-sequential points, use a column of bullets to denote their equal weight.   Be extremely careful with all these devices: it is very tempting to write in

staccato, unlinked statements, suggesting a series of unconnected thoughts with no narrative flow.

Remember that in the final printing of a guide, typography, point size (of type), and layout can be used to separate instructions, explanations, or recommendations. However, it is unwise to include these at the draft stages of a manuscript, because they make processing difficult and are often lost when files are moved from one system to another.

5.8   Abbreviations

Don't be creative.   Use standard ones (as in the Government Printer *Style book,* for example). Use SI units and write them by SI rules: Space before the unit abbreviation, and **don't** add **s** for plurals: 5 g, 5000 km, 37 943 km. If you work in WordPerfect, use a "fixed space" [HOME space-bar] (shown as [ ] in Reveal Codes). This will prevent the measurement and unit abbreviation from separating at line-breaks.

5.9   Scientific names

Be **absolutely sure** that any scientific names you use are true and proper names. Make sure that informal and tag names are **not** written in such a way that they can be confused with properly published names. Follow the International Codes. Please use standard abbreviations as specified in the codes: one sp., two spp., one subsp., two subspp.

5.10   Stereotypes

The English language does not have a common gender, third person singular pronoun, so the various cases of "he" have been used for this purpose for many hundreds of years.   Similarly, the primary use of the word "man" and its compounds is to refer to a member of the human race, not a male. Recent attempts to rectify this peculiarity with neologisms like "he/she", "fisherperson" and "chairperson" should not be used in guides. However, there are other mechanisms to deal with the problem:
• Rewrite the statement in the plural
• Address the reader directly in the second person
• Use the definite article rather than a possessive pronoun
• Rewrite the sentence in the passive, (but only as a last resort)

If you are quoting legislation, or writing mandatory passages, **you must use the original phraseology of the relevant legislation.**

Remember to be as sensitive about racial, religious, and cultural stereotypes.

6. POLISHING

Polishing of the first draft into something readable is an essential part of the production of a good instruction guide.   Most professional writers go through four or five drafts before they are satisfied with the final form.   During this self-editing process, you can completely change the style and organisation of the manuscript.   The two major considerations during the revision of a guide are accuracy and readability. Accuracy is addressed by relevance to the purpose and scope of the guide, but readability is a function of style.

Several methods can be used during the polishing of a manuscript. The most complete is a checklist procedure, which will take into account accuracy as well as readability formulae. An adjunct of these is the use of computer software which will check spelling and point out stylistic problems such as double words.

6.1   Steps in revising your manuscript
Look again at the terms of reference - then read straight through the manuscript before you begin to make any editorial changes. Make sure you get the whole picture. Then check carefully to see that you have addressed all the essential points in the brief.
Read through the draft again - slowly, but now begin to apply the stylistic principles described in the checklist below. This may seem slow at first, but as you get the hang of it, the process will go much faster. Pay special attention to getting rid of passive constructions and smothered verbs (see Section 5, above). You will be surprised how this can sharpen and strengthen your writing.
"Boil down" sentences - Make one word replace several words or a phrase. Cut out the deadwood and redundancy. Keep the average sentence length under 20 words if you can. Do keep some variety. Avoid the staccato effect of many successive short sentences.
Re-read - Read your manuscript one more time, aloud. The ear can detect flaws the eye misses.   Check for logic and completeness. Search for "wrong words" that are inappropriately used or have undesirable connotations. Put yourself in your readers' shoes and see if the writing tells the things they would want and need to know. If necessary, add an example, a definition, or an analogy.

6.2   Look critically at your writing
Is your writing clear?
• Will your readers be familiar with the language you have used?
• Is it free from elitist jargon?
• Is it free from cliches and slang?
• Are the words the simplest that can express your thoughts?
• Is the sentence structure clear?
• Is it free from grammatical errors?

Does your writing flow?
• Does each paragraph carry a complete idea?
• Are the paragraphs linked to one another with a continuity of thought?
• Have you overused bullets?
• Are your paragraphs a series of unconnected statements?

Is it simple and brief?
• Does it give only the essential facts?
• Does it include only essential words and phrases?

Is it accurate?
• Is the information correct?
• Does it conform with policy?
• Does it follow accepted procedures?

Is it complete?
• Does it give all the necessary information?
• Does it answer all the issues raised in the brief?

6.3   Refereeing and User-reviewers

Once completed, an instruction guide manuscript will be refereed before publication to ensure (as far as is practical) that nothing has been overlooked. The specific details of how each manuscript will be refereed are included in the project proposal (see **Section 2.4**, above).

Any contract for the preparation of a guide manuscript will make clear to the author(s) that these final consultations are a necessary part of the work. Authors should include a list of any informal refereeing or peer review which they have used, when they submit the final manuscript to the co-ordinator.

7.   PREPARING FOR PUBLICATION

All published reports, regardless of format, must comply with the recommendations for the Department of Conservation's *Corporate Identity Manual.* For scientific reports this principally relates to the use of the Department's name and logo. Draft CMS documents must follow the definitions for word usage set out in the *CMS Glossary.* Authors should stick to these definitions wherever possible to avoid confusion.

Many of the specifications for preparing a manuscript for a technical instruction guide are similar to those for publication in the *Science & Research Series.* These specifications are repeated here to provide a check list. They apply regardless of which page format is chosen for the final publication. Instructions specific to each of the various page formats are given in **Section 8**. below.

7.1   Sequence of the material

Title page: Includes title, author(s), and publisher.   If the manuscript originated as a DoC contract, it should also include key output category and the investigation contract number.

Reverse-of-title page: ISSN, ISBN, copyright, publishing date, and cataloguing data, - Science Publications Group will provide these.   Keywords: not more than 15; include NZMS map refs and scientific names where relevant. These keywords will appear on the final publication and are not necessarily the same as the keywords that will be used for the publication in various retrieval systems.

Contents page

First page of text (page 1): Give title and author's name and mailing address.

Short abstract (not executive summary):   This abstract goes out in distribution information.   Please keep it under 200 words; if someone else has to shorten it for you, they may not do you justice.

Introduction

Body of text

Acknowledgements

References (see below)

Appendices

Index (if it is to have one)

(The following more detailed notes assume the manuscript is to be processed in the Department's WordPerfect system. Words in SMALL CAPITALS are WordPerfect commands.)

7.2   Title

Make it specific enough to make sense standing alone in someone else's reference list. Keep it as short as possible.   Do not start a title with `A', 'An', `The', or numerals, because this will cause indexing problems, and make your paper hard to find in catalogues or title indexes.

7.3   Contents

Access to a book is very important, and is usually by an index or a contents list. The contents list can be defined, generated, and updated as often as required during revision

by using the MARK TEXT facility. The contents list should have three heading levels, with page numbers following each entry. Headings throughout the text are BLOCKED (selected) and marked for the appropriate level using the MARK TEXT facility and selecting first ToC, then ToCLEVEL. This enables the contents list to be regenerated with the correct pagination, once the book is complete.

7.4   Page numbers
Position is bottom centre of each page. Numbering starts (page 1) on the first page of text (Abstract page).

7.5   Abstract
In 200 words or less, what is this publication about? If you don't provide a SHORT abstract, you run the risk of someone else - perhaps a harassed and unsympathetic editor - doing it for you.   Keep it self-contained (no mention of references, figures, tables).

7.6   Figures
These can include both *line drawings* (graphs, maps) and/or *halftones* (black/ white photographs; see also under **Production**, below) and are numbered consecutively. In instruction guides, good use of graphic techniques can be worth a thousand words by making steps or procedures clearer and easier to follow.

7.7   Tables
When creating tables, use the TABLES function (under MATH/COLUMNS) or set tabs. Please do **NOT** use word spaces (space-bar), or what you see on your screen is not what you'll get in print. Once the text has been "massaged" in WordPerfect for final publication, the variable word space will have destroyed your table spacing. It takes ages picking out all those spaces to get the TABLE program to work properly.   Set tables and figure captions in 10-point type, because this is the size they will be printed.

7.8   Figures and tables
Use when they make life simpler for your reader.   Never repeat in the text the information you've just presented more graphically in a figure or table.   Refer to all figures and tables in the text. Be careful about copying other people's material (see above under **Section 3.3 Copyright**). All figures and tables will be inserted in the text, as near as possible to where you first mention them. If you do not know how to use the FIGURE BOX and TABLE BOX facilities under GRAPHICS in WordPerfect, you are advised to place figures and tables at the back of the text or in separate files.

7.9 Information boxes
These will contain the additional information/explanation which is separated from the

TEXT BOX
This is an example of a Text Box. It could contain extra detailed instructions, or an explanation of a word or activity mentioned in the main text.

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[a]   An **abstract** is different from an **executive summary**. The latter is a project summary for administrative use and is **NOT** distributed with the paper.

main text for clarity. The position (layout) of these boxes throughout the text is an important feature of the book design. Size and position may vary depending on the requirements of the text. The TEXT BOX or USER BOX features under GRAPHICS enables the inclusion and manipulation of these boxes within, beside, or around the text.

7.10   Heading numbering and spacing

Up to three levels of heading are included in the Contents list, but extra lower levels can be included in the text if required to adequately cover the subject treatment. Headings are numbered and spaced as in the example in the box on the next page.

7.11   References

Be sparing with references, and don't bother to cite authority for unexceptional, well-known, or boringly obvious points. Use references for places where your reader might want to interrupt your argument with a query or a challenge, or may wish to read more widely about the subject under discussion.

Please give your readers enough information to find the references themselves. (That is what references are meant to be all about.) Assume they are on Mars and working exclusively through interloan.   They will need: **author(s), title, year of publication, publisher's name, any journal or series or conference name,** and **page numbers** if it is part of a larger publication. Don't abbreviate titles. Refer to groups of references **in the text** by publication date order, not alphabetically (Bloggs 1967, Snaveley 1978, Smith and Jones 1987). A few common subspecies of reference are shown below:

Books

Andersson, J.P., Yamamoto, G.O., Yates, L. 1990. Rethinking fisheries guidelines.   Weidenfeld
     and Nicholson, London.

Journals

Brown, M.O., and Nicholson, I.E. 1957.   Population distribution and the bug-eyed monster
     (Humungous popoculis) feeding patterns.   *Journal of the Royal Society of New Zealand*
     27: 42-98.

Series

Clayton, I.L. 1986. Radio tracking the Stewart Island weka: Beam me down,   *S. scotti.   Science
     & Research Series 42.*   Department of Conservation, Wellington.

Chapter In a book

Davis, B.W. 1969. Breeding failure in extremely large snails. Pp. 35-57 in Wainwright, R.K. (Ed.):
     Populations of the world.   ANU Press, Canberra.

Conference or seminar paper

Sherley, G.H., Gregory, S.H., and Howard, S.G. 1993. Nocturnal surveys of feeding invertebrates, using
     environment-friendly light sources. Pp. 1243-1254 in Dagg, F.G-B. (Ed.): The last environmental
     straw.   *Proceedings of the 23rd International Congress of Paryphanta Deputies, Calcutta, 2-16
     September 1987.*   Snorton & Wifflin, London.

7.12   Appendix material

This goes at the end of the References and Appendices should be individually listed in the contents. Think of any appendix as a very long footnote containing data that back up your argument, but is not needed within the main text for your reader to understand the argument, itself. This is often the best place for long lists of species or observations, sample details, and detailed descriptions of methods. It's not part of the paper itself, so don't put your conclusions (or any other spiritual nitty-gritty) here.

ABSTRACT

This abstract is I;Ikjb sdf;I kj;Ikj;I kj ;poot Ikj Ik jnbl kj;Ikj; Iknnb Ikj; Ik masterpiece of brevity j nbl kjl;k jnb Ikj ;I kjnbl kjl;kj nblkj; Ik jl nbkj Ik;Ikj Ikjlnb kjlklkj whee nblk j;Ikjnb Ik jnblkj ;I jckjnblk jnblkjl ;kj klj as our excavation showed.

1. INTRODUCTION

This study is Ik iswk iswlkjh kjhlkj remaining places k iswk is wkljh klhhk iswlkjhk ¡sw Ikjh not many left Ikjhkl ineffable paucity js hl khjkl iswk jhkijhkjh Ik iswk jhl kjhlkj hl diversity kjh saw one last week Ikjhkl iswk but only at a distance jhk iswk Ij hkjhlkh jkl iswk kjhkj hk isw and there it is, then.

2. THE NATURAL ENVIRONMENT

2.1 Geological Sites

The geology is jhgf iswgfjhgf iswgfjhgfjhgfjhgf iswgfjhgfjh gf iswgfjhgf iswgfh orogenically splendid jgf jhgfjc hfjhgf iswgfh full of rocks jgfjhgx fxjhgfh jgfhj gf ¡swgfjhgf iswgfjhg f isw definitely over the hill and fgjhgf iswgfhjgfj hgfjhgf iswgf nblk amazingly informative j nblkj Ikjj better believe it.

2.1.1 Stratigraphy

Layered hgf pebble base fdhc dhgf pebble base fdhgfdh cdhgf dhgc hg fdhgf in other places fdhgf d hgfdhgfdhgfd hg fdhgfdhgfdhgfdhgf dhgd flat and even flatter ghf dgfdhg fdhg fdhg fdh unreal hg isw g fjhgfjghgf hgfjhgf iswgf jhgf iswg jhgfjhgf hgf iswgf iswgf jhf iswgf jhg splinter fault.

7.13 Index

An index expresses ideas or concepts selected from the document in terms convenient to the target audience. It helps to compensate for the fact that your guide can be written ¡n only one sequence. When compiling your index, use terms appropriate to your audience and try to anticipate the various ways in which they will look for information.

You can use word processing software to compile an index if you are satisfied that you don't need to add terms and synonyms to those already in the text. The major word processing programmes have an indexing capability. The manuals will give you ¡nstructions. Most times, however, you will want to add extra terms to supplement those ¡n the text, so you will make your own index, or build on one produced by a word processing programme. The following are a few points to keep in mind:
• 	 Index everything, including figures, tables, and appendixes. Use the style recommended in this guide where relevant. Refer to either page or section numbers, whichever provides the better access.
• 	Use as few words as you can, though they need to be unambiguous and self-explanatory. In general, use words and phrases as they are spoken, e.g. feral cats rather

than cats, feral. If you want to draw attention to the important word, you may need to reverse this order.

• Be consistent in your use of synonyms. Decide on an appropriate term(s) for similar or overlapping concepts such as resource accounting; resource tax; natural resource accounting; biological values; conservation values. There is no hard and fast rule for deciding the most appropriate. The target audience and frequency of use are good starting points.

• Make cross-references from terms that you have decided not to use, e.g.,

> resource accounting, see natural resource accounting

However these can be very irritating to a reader, so try to keep them to a minimum. If there is not too much duplication of text, prefer to repeat page numbers under each term. One catch with repeating the page numbers is that you must remember all the terms you have used, so that you can add the page numbers consistently to each. You will have to decide whether to repeat page numbers for scientific, Maori and common names, or make cross-references. Use the amount of text and the target audience as a guide.

• You can also make references to more specific aspects of a term, or to related terms, if you think it useful, e.g.,

> poisoning, 50, 150-155
>> see also 1080; bait; Pulse; Roundup

• Use indentation to avoid repeating words:

> National Indigenous Vegetation Survey database, dataset directories
>> Otago, 24
>> Tongariro, 25
>> Waikato, 26

• Avoid long strings of page references:

Not:

> possums, 8-11, 35, 43, 76-77, 78, 79, 82, 83

But:

> possums, 8-11, 71
>> 1080 poisoning, 76
>> brushtail, 35, 75
>> damage to pohutukawa, 43, 78
>> electric fence control, 79
>> impact of control operations, 76-77
>>> on kiwi, 83
>>> on kokako, 82

Use "possums" by itself for general references and indent the specific aspects below. In a short index, deciding how to list the specific aspects is not much of a problem because it is easy to scan the list quickly. In a long index the choice is more difficult. If the above example was longer, you might think it useful to duplicate "kiwi" and "kokako" as individual entries, if readers were likely to look for them that way. You might also prefer to make an entry "pohutukawa, damage" to draw attention to the most important aspect.

• Avoid prepositions at the beginning and end of terms:

Not:

> weeds
>> biological control of, 11-13
>> in Fiordland, 53

But:

> weeds
>> biological control, 11-13
>> Fiordland, 53

Occasionally, however, you may need to use prepositions to avoid ambiguity:

Eketahuna Conservation Society
grants by, 105-106
grants to, 31, 56

In the possum example above, under impact of control operations, the prepositions make the relationship clearer.

7.14 Typesetting
The standard font for the series is Helvetica 11 point, but point sizes change for different formats. **Italics** - use FONT italics, not underlining.

7.15 Proofreading
Remember SPELL CHECK won't check your syntax for you, nor will it identify the use of a wrong word!

7.16 Printing
At Science Publication this is usually by photocopying. We duplex all text except A3 fold-outs and (optional) photo illustration pages. If you need colour, other printing methods are required, and must be budgeted for at the planning stage. Consult us about lay-out and number of copies before you spend any money; one can pay a lot for very poor results in this area.

8. *DEPARTMENT OF CONSERVATION TECHNICAL SERIES*

The *Department of Conservation Technical Series* has a variable format (see **Section 1.3**), which allows reports to be produced in the form most suitable for their purpose. The choice of format is made during the initial planning stages (see **Section 2**.).

8.1 Alternative formats

Most publications in this series will be produced in a single colour (black). The two most usual book sizes will be **A4** and **A5 Portrait**. These options allow for a large page area (A4), or easy portability (A5), and can be produced at reasonable cost for small print runs by current production methods.

Two other possible options are **A4 Landscape** and **colour printing** in any of the three sizes. The Landscape format provides extra wide (panorama) page spread, but is cumbersome to hold and carry. Colour printing involves full multi-plate printing on a printing press, which is expensive, and really only practical for a large print-run of several thousand copies. Details of proposals to use these options should be discussed with the Science Publications Unit at an early stage, to ensure budget proposals and production methods are sound and affordable.

8.2 Format for an A4 Portrait page

General specifications as outlined in **Section 7**, above, apply. In addition, the following parameters are relevant to this series:

Page dimensions - Margins are: 3 cm left, 3 cm right, 3 cm top, and 2 cm bottom. Single column.

Font - For final copy, use Helvetica 11 point, with 9 point for tables and references; full justification. Single-space all lines of text.

8.3 Format for A5 Page

Page dimensions - Margins are: 1.5 cm left, 1.5 cm right, 2 cm top, and 2 cm bottom. Single column.

Font - For final copy, use Helvetica 10 point, with 8.5 point for tables and references; full justification. Single-space all lines of text.

8.4 Format for A4 Landscape

A4 Landscape is the wide orientation of A4 (see under FORMAT, 2 - Page). It is an uncommon book shape, because it can be awkward to hold. However, it has specific advantages when the subject matter requires a very wide panoramic display, or a series of steps or illustrations side-by-side. This format should only be used when A4 and A5 Portrait cannot adequately accommodate the material.

Page dimensions - Margins are: 3 cm left, 3 cm right, 2 cm top, and 2.5 cm bottom. Text pages require either (a) two or (b) three columns, with 10 mm gutter(s).

Fonts - For final copy font sizes can be (a) the same as for A4 Portrait, or (b) smaller than for A4 Portrait because the columns have shorter line-lengths: Helvetica 10 point for text and 8.5 point for tables. Fully justified, single spaced.

9. CONCLUDING REMARKS

While some of these comments are familiar practice to scientists preparing papers for publication, others relate specifically to preparing technical instruction guides. If this guide works as it is intended, the advice given here should speed the publication of the final book, and reduce the waste of multiple handling and misplaced effort.

The compilation of an instruction guide like this is very much a co-operative effort. I gratefully acknowledge the comments and suggestions of the numerous "guinea pigs" who have critically read the manuscript. In particular I wish to thank three people whose ideas are incorporated into this guide: Andrew Keber for material in chapters 4-6; Mary Cresswell for her Science Publications Guide to Authors material in chapter 7; and Diane Lowther for providing the section on indexing and compiling the Index to this book.

Any ideas for additions or improvements to future editions will be welcomed by the staff at Science Publishing.

11. REFERENCES

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Entries in this index are referenced to the section numbers in the text, but index entries can also be referenced to the page numbers of a book.