During your time as an intern at Indlovu Camp, you will be asked to write a proposal during your first week and produce a report, two weeks prior to your departure. These writings are important for your continued learning and to contribute to the quarterly Transfrontier Africa Reports, which are sent to all neighbouring wardens, landowners, lodges, farmers and contributing researchers. Consequently, a level of professionalism and consistency is required from all intern reports. In order to achieve this, we ask that all students and interns follow the following proposal outline and article format from ‘Nature’.

**Proposal Outline**

A research proposal has three main points:

1) Explanation of proposed research (what will be done)
2) Methods and techniques to be employed (how it will be done)
3) Novelty and/or importance of the study (why it should be done)

**Title**

This should provide a specific summary of the proposed work

*Example 1:*

A three year study of population decline in the spotted salamander (Ambystoma maculata) following logging, road building and wetland mitigation near vernal pools in a hardwood forest of north eastern Connecticut. = NO *(too much detail)*

A study of population decline in the spotted salamander (Ambystoma maculata) following logging in north eastern Connecticut. = YES.

*Example 2:*

Habitat models for use in rivers. = NO *(not enough detail)*

Validation of in-stream habitat models for the Fenton River, Storrs, Connecticut. = YES.

**Abstract (one paragraph)**

This is a brief description of the hypothesis and the goals of the experiment. It should indicate what questions you, as a researcher, will be seeking to answer. An abstract provides a summary that allows readers to quickly assess the basic premise of your proposal.

**Introduction & Literature Review**

You should begin with the basics of your research topic and then narrow the focus of those details that are especially pertinent to the proposed work. Present what plant biologists currently know, and how these discoveries were made. This is the place to show what is interesting and cutting-
edge in the field that led to your research idea. You are laying the groundwork for your proposal with the material that you present. Use a plethora of sources especially primary sources such as journal articles. Textbooks, web sites (with great caution) and personal communications with professors can also be useful sources. Make sure to cite appropriately in the text (more to follow on citation)
This is the heart of your assignment and will probably be the lengthiest piece of it. Your sentence structure should look something like this:

• “According to Thullen et al. (1999), nitrate removal rates were highest in those wetlands that contained a diverse number of plant species.”

• “Within organism’s cellular nitrogen generally exists as either ammonia-nitrogen or amino-nitrogen, which are the most reduced forms of nitrogen (Delwiche, 1981).”

Never leave your reader in doubt as to the source of your information! Cite thoroughly and cite properly.

***A note on sources, paraphrasing, and citations:
Unlike the style you might use in English expository writing, technical science writing is terse, clear, cut, and lacking in artistic enhancements. When using information from a source avoid quoting directly. Read the piece, put the article down, and then put the important points into your own words. By setting the article aside you are allowing yourself to process the information, instead of just spitting the idea back out in a slightly altered sentence.

Citations tend to be (author, year). If you refer to the author in the sentence, immediately follow the name with (year) (see examples above).

Research Hypothesis
What is the hypothesis that you are testing? What are the questions that you seek to answer? Based on what is known in this field, explain what you expect to see and hope to show through your result? This is where you share your thoughts.

Material and Methods
Describe your proposed experiment in depth. What processes are you going to use? What kind of equipment and supplies will be necessary for the project? What will you use for a control, and what will be your replicate? Be thorough, but not excessive. It might be useful to construct an outline before completing this section, as this will give you an idea of what should be occurring when, and if your goals are attainable in the given time.

Conclusion and Justification
Your literature review will have already helped to lead the reader to an understanding of why your topic is of importance. This is where you will explicitly state how your proposed research will advance knowledge. What are the far-reaching effects? Will your study potentially change practices or policies? Why is it that your research deserves funding?

Bibliography
Include all the resources that were used in the writing of the paper. Follow the reference outline as explained in the following report outline.

***A note on Voice:
There is no one format for voice in scientific writing. Active voice is usually encouraged.

***Important Points to Remember
• An organized, well-written, concise, complete proposal = an easier to conduct experiment
• A good proposal is like a good sales pitch. In the world of graduate studies and scientific
research a proposal is the means by which funding is secured.

• Good writing when paired with a thorough understanding of the subject matter is a valuable skill to possess.

Manuscript formatting
This guide describes how to prepare contributions for submission. We recommend that you also read the full version on www.nature.com/nature/authors/gta. Before submission, we recommend authors familiarize themselves with Nature’s style and content by reading the journal (in print or online at www.nature.com/nature), particularly if they have not submitted papers recently.

Articles
Articles are original reports whose conclusions represent a substantial advance in the understanding of an important problem and have immediate, far-reaching implications. They have no more than 50 references.

Articles have a separate summary of up to 150 words, which has no references, and does not contain numbers, abbreviations, acronyms or measurements unless essential. It contains 2–3 sentences of basic-level introduction to the field; a brief account of the background and rationale of the work; a statement of the main conclusions (introduced by the phrase ‘Here we show’ or its equivalent); and 2–3 sentences putting the main findings into general context so it is clear how the results described have moved the field forwards.

Articles are typically 3,000 words of text (not including Methods, summary or other sections), beginning with up to 500 words of referenced text expanding on the background to the work, before proceeding to a concise, focused account of the findings, ending with one or two short paragraphs of discussion.

The text may contain subheadings (less than six in total) of less than 40 characters (including spaces) each. Articles have 5 or 6 display items (figures or tables).

Readability
Contributions should be clear and simple so that they are accessible to readers in other disciplines and to readers for whom English is not their first language.

For gene, protein and other specialized names authors can use their preferred terminology so long as it is in current use by the community. They must give all known names for the entity at first use in the paper and database accession numbers and/or unique identifier (e.g. RefSeq accession number) in the end notes.

Nature prefers authors to use internationally agreed nomenclature; details are provided in our author policies (www.nature.com/authors/editorial_policies/availability.html). Please also note the special circumstances about online publication of formal descriptions of new species (www.nature.com/authors/editorial_policies/confidentiality.html).

Format of Articles
Contributions should be double-spaced and written in English (spellings as in the Oxford English Dictionary). Contributions should be organized in the sequence: title, text, methods, references, end notes, tables, figure legends.

Titles
Titles should not exceed 90 characters (including spaces) for Letters, or 75 characters (including spaces) for Articles. Titles should not include numbers, acronyms, abbreviations or punctuation. They should include sufficient detail for indexing purposes but be general enough for readers outside the field to appreciate what the paper is about.
Text
Articles should fill no more than 5 pages, and Letters no more than 4 pages, of Nature. An uninterrupted page of text contains about 1,300 words. Authors should state in a cover letter to the editor their rough estimate of the length of their paper in terms of number of pages of Nature, after reducing display items to the smallest acceptable size (see Figures, below).

Nature prefers authors to be listed without details of relative status, but instead to specify the contribution made by co-authors in the end notes of the paper. Present addresses appear after the author address list (below the footnote rule at the bottom of the first page) and may be identified by a dagger symbol.

Methods
If brief (less than 200 words), they can be included in the text at an appropriate place. Otherwise, they should be described at the end of the text in a 300-word (maximum) ‘Methods Summary’. Detailed descriptions of methods already published should be avoided.

If more space is required for Methods, the author should include the 300-word section ‘Methods Summary’ and provide an additional ‘Methods’ section at the end of the paper. This Methods section will appear in the online PDF and in the full-text (HTML) version of the paper online, but will not appear in the printed issue. The Methods section should be written as concisely as possible but should contain all elements necessary to allow interpretation and replication of the results. As a guideline, Methods sections typically do not exceed 3,000 words. Authors can deposit the step-by-step protocols used in their study to Protocol Exchange, an open resource maintained by NPG. Protocols deposited by the authors will be linked to the Online Methods section upon publication.

The Methods section should be subdivided by short bold headings referring to methods used and we encourage the inclusion of specific subsections for statistics, reagents and animal models. If further references are included in this section, the numbering should continue from the end of the last reference number in the rest of the paper and the list should accompany the additional Methods at the end of the paper.

References
References are each numbered, ordered sequentially as they appear in the text, Methods Summary, tables, boxes, figure legends, online-only Methods, Extended Data tables and Extended Data figure legends.

When cited in the text, reference numbers are superscript, not in parentheses unless they are likely to be confused with a superscript number. Only one publication can be listed for each number.

Only articles that have been published or submitted to a named publication are included in the reference list; papers in preparation are mentioned in the text with a list of authors (or initials if any of the authors are co-authors of the present contribution).

Published conference abstracts, numbered patents and preprints on recognized servers are included in reference lists, but text, grant details and acknowledgements are not.

In preparing reference lists, please ensure that:
• Authors are listed surname first, followed by a comma and initials of given names. All authors are included in reference lists unless there are more than five, in which case only the first author should be given, followed by ‘et al.’.
• Titles of all cited articles are given in upright, not italic text. The first word of the title is capitalized, the title written exactly as it appears in the work cited, ending with a full stop. Book titles are italic with all main words capitalized. Journal titles are italic and abbreviated according to common usage (see published issues of Nature).
• Volume numbers are bold. The publisher and city of publication are required for books cited.
• References to online-only journals are in the style: authors, article title and journal name as above, followed by URL in full — or DOI if known — and the year of publication in parentheses.
• References to websites are in the style: authors (if known), title of cited page, URL in full, and year of posting in parentheses.

End Notes
End notes are brief and follow the reference list. They contain a statement for supplementary information where present; acknowledgements; author contributions; and author information (the latter should contain database accession numbers and competing interests statement, if applicable). Consult the information sheet ‘Nature end notes’ for an annotated example.

Life sciences reporting guidelines
Authors of life sciences research papers that are sent for external review must include in their manuscripts relevant details about several elements of experimental and analytical design. These requirements aim to improve the transparency of reporting and the reproducibility of published results. They focus on elements of methodological information that are frequently poorly reported (see more details on these elements here). During peer review, authors will be asked to confirm that these elements are included in the manuscript by filling out a checklist that will be made available to the editors and reviewers.

Tables
Tables should be presented on separate pages, portrait orientation, and upright on the page.

Tables have a short, one-line title in bold text and should be as small as possible. Symbols and abbreviations are defined immediately below the table, followed by essential descriptive material as briefly as possible, in double-spaced text.

Figure legends
Figure legends should be listed one after the other, as part of the text document, separate from the figure files. Please do not write a legend below each figure.

Each figure legend should begin with a brief title for the whole figure and continue with a short description of each panel and the symbols used. For contributions with methods sections, legends should not contain details of methods, or exceed 100 words (fewer than 500 words for the whole paper). In contributions without methods sections, legends should be less than 300 words (less than 800 words in total).

Figures
Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible. For guidance, Nature’s standard figure sizes are 89 mm (single column) and 183 mm (double column) and the full depth of the page is 247 mm.

Amino-acid sequences should be in Courier (or other monospaced) font using the one-letter code in lines of 50 or 100 characters.

Lettering in figures should be in lower-case type, with the first letter capitalized and no full stop. Units should have a single space between the number and the unit and follow SI nomenclature or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations are defined in the legend. Scale bars should be used rather than magnification factors.
Layering type directly over shaded or textured areas and using reversed type (white lettering on a coloured background) should be avoided. Text, including keys to symbols, should be provided in the legend rather than on the figure itself.