Biol334 Assignment 2: Scientific report

How to prepare a manuscript in the biological science disciplines

There are a number of good 'how to' guides for writing scientific articles. This is a brief outline of the most important points to be considered and covered in each section of a biology-based manuscript. For this assignment, your manuscript is expected to adhere precisely to the style guide of the journal ***EVOLUTION*** – detailed author instructions are available online.

Title	- Briefest and simplest possible descriptive title for the study
Abstract	- Summary of the study [get the gist across to somebody in a hurry!].
Introduction	
	- introduction to general subject matter; - introduction to the 'problem' or 'question'; - brief review of important, relevant and/or recent research (i.e. what we already know about the subject); - introduction to your study system; - Clear statement of your AIM(s), hypothesis(es) and testable predictions;
Methods	
	- outline procedures; - briefly detail specialist techniques; - outline statistical procedures;
Results	
	- summarize your data and key findings in explicit terms of your aim(s); - refer to Figures, Tables, etc. (but don't replicate data presentation); - report '**what'** without any reference to '**why'**
Discussion	
	- [if the work is complex] brief summary of initial aim/hypothesis/results in light of broadest possible context: **conclusion up-front & linking back to the Introduction**; - step through important features & broader implications of results with reference to the published literature; - discuss the reasons why things turned out the way that they did (incl. alternative explanations such as procedural failures/limitations); - discuss any unexpected aspects of the results - suggest potential future research directions or management implications
Acknowledgements	- List funding agencies, colleagues, editors/reviewers
References	- tabulated list of cited references in **highly specific format** (which is often journal-specific)
Tables	- Summary results tables, numbered and presented in order corresponding to when they're referred to in the text
Figure legends	- Legends to Figures presented on a separate page
Figures	- Each Figure itself on a separate page

Marking scheme

The marking scheme for this assignment is overleaf. Note that there is no word limit (only some scientific journals impose upper limits), but to have all the working bits and pieces of a good report will require **~2000-2500 words**. Similarly, there are no numerical limits on the number of cited references, but to cover the literature correctly you will need to cite **at least 10-15**. Any fewer and you will lose marks for the introduction and discussion – these are the sections where supporting scientific literature is referred to the most. Late penalties apply (i.e., 5 % per day past the due date) – please consult the Unit Guide.

Student Name: ID:

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Grading rubric

These scales assess various aspects of your performance in this written assignment. Marks to the right indicate a better performance in the stated objective. **They are NOT strict numeric grades** used to calculate your score for each section.

Title & abstract		**(2 marks)**
Title absent or inappropriate		Title appropriate & informative
Abstract incomplete		Abstract succinct & complete
Introduction		**(4 marks)**
Introduction poorly researched		Introduction well researched
Aims unclear		Aims clearly stated
Lack of flow, illogical, incoherent		Logical flow, coherent argumentation
Methods		**(2 marks)**
Methods incomplete/illogical		Methods complete/logical
Inappropriate detail		Appropriate level of detail
Statistical analysis not given		Adequate explanation of stats usage
Results		**(3 marks)**
Figures absent/poorly presented or cited		Figs & legends present & correctly cited
Statistics absent or incorrectly cited		Stats present & correctly cited
Tone and/or content inappropriate		Appropriate tone and content
Discussion		**(4 marks)**
Conclusion unclear		Conclusion clearly stated
Discussion poorly researched		Discussion well researched
Does not tie results to literature		Ties results to literature
Illogical and/or meandering		Logical flow
Referencing		**(1 mark)**
Too few or inappropriate references		Adequate references
In-text referencing absent		In-text referencing appropriate
Formatting		**(1 mark)**
Not in *EVOLUTION* style		Fully adhered to EVOLUTION style
Grammar & readability		**(3 marks)**
Clumsily written, repetitive, wordy		Fluent & succinct
Ideas did not flow well		Ideas flowed logically
Many ungrammatical sentences		Grammatically correct
Many spelling errors		Correct spelling throughout
Incorrect use of punctuation		Correct punctuation throughout
TOTAL		**20 marks**

Rubric based on: Hay IH, Brochner D & Dungey C (1997) *Making the Grade*. Oxford University Press, Melbourne