Welcome to the Loyola Undergraduate Research in Sustainability manuscript template!

* Your manuscript will begin on page three, where you will replace the detailed instruction text with the text of your manuscript (you can delete the comments by replacing the text they comment on).
* When you are done writing your manuscript, please check the boxes and enter word counts on the first two pages to help speed the editing process. Simply leave these first two pages as part of your manuscript. *Note, we are so rigorous about the formatting to ensure consistent peer review that is not subconsciously influenced by formatting choices.*
* When you are finished, this blue form (pages 1&2) should be filled out and all of the instructional text and comments (page 3&beyond) should be replaced with real content and/or deleted.
* If you have any questions at all, please reach out to the LURS Assistant Editor: [LURS-Intern@LUC.edu](mailto:LURS-Intern@LUC.edu). They will be happy to help!

**Submission type (select one):**

Are you submitting a Traditional Research Paper that conforms to the requirements below?

* Abstract is 200 words or less
* Main text includes Introduction, Methods, Results, Discussion, and Conclusions sections
* Main text is 4000 words or less

Are you submitting a Review Paper that conforms to the requirements below?

* Abstract is 200 words or less
* Main text includes Introduction, Methods, combined Results/Discussion, and Conclusions sections
* Main text is 4000 words or less

Are you submitting a Technical Report that conforms to the requirements below?

* Abstract is 100 words or less
* Main text includes (brief) Introduction, (substantive) Methods, (optional) Results, and (brief) Discussion/Conclusions sections
* Main text is 2000 words or less

**Formatting details:**

Times New Roman font, 12pt

Lines 1.5 spaced

Lines continuously numbered (makes it easy for peer-reviewers to reference lines)

Consistent-looking tables, numbered in the sequence of their appearance, can be 10pt font

How many main text tables?

Consistent-looking, high-resolution figures, numbered in the sequence of their appearance, ideally using Arial font at a size large enough to comfortably read. Good balance between line widths, point sizes, and type. Not a lot of useless dead space. Thoughtful scaling of axes (e.g. should each panel in a multi-panel figure use the same axes ranges or not? The correct answer could go either way depending on the purpose of the figure).

How many main text figures?

Graphical abstract exists.

Citations within the document and the list of citations in the Literature Cited section follow the formatting used by the journal Ecology.

Optional: Have you made a video about your work? You are encouraged to make and submit a short video about your work to use as promotional material for LURS and for use on social media. Make the video public (e.g. on YouTube) and submit a link during article submission.

Optional: Do you have a photograph that might be suitable for the LURS cover? Please paste the photograph in the space provided below.

Optional: Is there supplemental online material (SOM)? (note there are no length restrictions on SOM) (You will enter any SOM after the main text material below.)

**Title**

**Running Head:** Shorter title

**Authors: do not include authors’ names here or anywhere in the manuscript to facilitate double-blind peer review**

**Abstract**

Summarizes the paper in one paragraph. Some folks recommend that you write this section last. Others disagree. Regardless, boil down your intro, methods, results, and discussion sections to a sentence or two each and you’ll have a great abstract.

* succinctly describes why research was conducted in the first place
* succinctly describes methods (relative to all the possible methods in science - did you do a field experiment? Did you reanalyze others’ data? In this large context, what did you do?)
* succinctly summarizes results
* succinctly describes implications of results

**Keywords:** elevated CO2, carbon storage, nitrogen limitation, competition, wood, game theory, evolutionarily stable strategy, tragedy of the commons

**Graphical abstract**

|  |
| --- |
| **Paste your graphical abstract here, replacing these words.** |

**Optional cover photo?**

|  |
| --- |
| **If you have a photograph of your research that may be suitable for a cover, please paste it here, replacing these words. If the photograph would reveal author identities, please *do* *not* paste it here. Instead, email it to the Assistant Editor,** [**LURS-intern@LUC.edu**](mailto:LURS-intern@LUC.edu) |

1. **Introduction**

Provides background information. Write this section as if you haven’t yet performed the research. Make NO mention of your results. This section sets the stage and lets the reader know why your topic is interesting and worthy of pursuit. Part of that answer involves the scientific community and work that others have done on similar questions. At the end of this section, explicitly state your question and hypothesis.

* explains why this line of research is interesting and/or important
* reviews previous researchers’ work
* explains how student’s work amplifies, tests, or complements previous researchers’ work
* explains any relevant theory
* clearly states question(s)/hypothesis(es)/motivation(s)
* does NOT explore topics that are not directly relevant to the research

1. **Methods**

Explains what you did, why you did it that way, and the materials you used. Write this section with enough information so that a peer could replicate your work (but not in a “first do this, then do that” kind of way). Organize it logically (which will seldom end up being chronologically). Do not include extraneous information (for example, it can be assumed that you recorded information properly and kept track of your experiment properly - you don’t need to write this).

* explains and justifies study setup
* explains and justifies what data are collected
* for literature reviews, explains the search criteria and procedure to find the relevant papers
* explains and justifies statistics and calculated values used in analysis

In case you need to include equations, here is a template:

|  |  |
| --- | --- |
|  | (1) |

1. **Results**

Presents all the data used to test the hypothesis. Summarizes important trends shown in tables/graphs, and describes the results of statistical tests. Write this section without analysis of the implications. Just say what happened. Do not “interpret” the results or put any “spin” on them. Why? Imagine a researcher reads your paper years from now and has a radical new theory – one you’ve never dreamed of. She wants to see how your data conform to her new theory. She will use your results section to do this, and she does not want to be burdened by your interpretation (“spin”) of the results. So just say and depict what happened.

* properly describes in words the important trends depicted in figures and tables
* properly describes in words any important results that are not depicted in figures and tables
* properly describes the statistical significance of the results
* does not discuss the implications of the results (save that for the discussion!)

1. **Discussion**

* Interprets the results presented in the Results section in the context laid out in the Introduction section. Compares actual results with expected results. Discusses possible implication of findings in a scientific or societal context.
* interprets the results, and discusses what the results mean in the context of the question(s)/hypothesis(es)/motivation(s) laid out in the Introduction.
* if methodology is discussed, it is done so constructively.
* discusses results in the context of other scientific work (as mentioned in the introduction) - do results support or contradict previous researchers’ work? Why?
* speculates about greater ecological and/or societal implications of work and reasonably substantiates those speculations

1. **Conclusions**

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

**Acknowledgements**

This work was funded by XYZ. We thank NAME 1 for helpful comments. We thank NAME2 for sharing their data. We thank NAME3 for help in the lab.

**References**

Reference formatting: Use the APA (American Psychological Association) style.

It is highly recommended that you use a reference software program such as Zotero, Endnote, or RefWorks (http://libraries.luc.edu/tools).

All references mentioned in the Reference List are cited in the text, and vice versa.

In-text reference citations: Use name-date format, not numbered references, and enclose citations in parentheses. Papers authored by three or more people only use the first author’s last name with “et al.” (Dybzinski et al. 2003) or Dybzinski et al. (2003). Multiple simultaneous citations are separated by commas without using the word “and” (Lane 1998, Lane and BassiriRad 1997, Dybzinski et al. 2003). When explicitly referencing the author, do it this way: “Dybzinski (2003) claims that citations which include the researchers’ name(s) in the sentence should have the year immediately following the name. Tilman et al. (2003) concur.”

**Tables**

Table 1. Write a brief, descriptive legend for your table here (i.e. replace this text). Imagine that a reader is just skimming your paper and focusing on the tables/figures… Include the information that this reader needs to understand the table.

**<use Word’s Table feature to make your table here>**

**Figures**

* Ensure that each figure has a caption. A caption should comprise a brief title (not on the figure itself) and a description of the figure.
* We recommend that figures be prepared in one of the following formats: PNG, PDF, as a last resort, TIFF or very high resolution JPG. Figures should be embedded in the main manuscript for submission but uploaded separately at resubmission or revision (because separate files are needed for production). For revision, each figure file must be complete and contain all parts of a single numbered figure.
* Use lowercase letters (a, b, c…) to label parts of the figure; do not use Arabic or roman numerals. Combine all figure parts into a single figure. When possible, include the figure label in the top left corner of each plot. Do not include information in a figure that could easily be included in the caption.
* Number figures consecutively in accordance with their appearance in the text (not by section).
* Tips for preparing good figures:
  + Ideally using Arial font at a size large enough to comfortably read.
  + Good balance between line widths, point sizes, and type. Not a lot of useless dead space.
  + Thoughtful scaling of axes (e.g. should each panel in a multi-panel figure use the same axes ranges or not? The correct answer could go either way depending on the purpose of the figure).
  + Be mindful of readers who are less sensitive to colors. Use patterns and line styles to differentiate lines.

Figure 1. Write a brief, descriptive legend for your figure here, i.e. replace this text. Imagine that a reader is just skimming your paper and focusing on the tables/figures… Include the information that this reader needs to understand the figure.

|  |
| --- |
| **Insert or paste your figure here** |

**Supplemental Online Material (SOM)**

Include anything that might be of use to future readers/researchers and that is too cumbersome or not essential enough to warrant inclusion in the main text. This can be such things as

* additional, more in-depth methodology (e.g. so that future students can really replicate your methodology)
* additional figures for very interested readers
* additional tables for very interested readers
* raw data! (This would be potentially VERY useful to future students, please consider including your raw data)
* code, e.g. R or SAS scripts! (Also potentially very helpful to future students)
* pictures (often worth 1000 words!)
* anything else you think might be useful to future students or researchers

**Note that the SOM will *not* be typeset. It will appear as you create it (so create it well!).**