

Human Impact on Ecosystems and Population Dynamics: Common Assignment 2—LDC Module Prompt Rubric

PROMPT: After researching human impact on biodiversity in regard to either keystone species or invasive species, write a magazine article (in *National Geographic* style) that analyzes and interprets data, in order to provide a solution to mitigate the impact of removing keystone species from an ecosystem or introducing invasive species into an ecosystem of your choice, providing evidence to clarify your analysis. What conclusion or implications can you draw? A bibliography is required.

Scoring Elements	Not Yet		Approaches Expectations		Meets Expectations		Advanced
	1	1.5	2	2.5	3	3.5	4
Focus	Attempts to address prompt, but lacks focus or is off-task.		Addresses prompt appropriately, but with a weak or uneven focus.		Addresses prompt appropriately, and maintains a clear, steady focus.		Addresses all aspects of prompt appropriately and maintains a strongly developed focus .
Controlling Idea	Attempts to establish a controlling idea, but lacks a clear purpose.		Establishes a controlling idea with a general purpose.		Establishes a controlling idea with a clear purpose maintained throughout the response.		Establishes a strong controlling idea with a clear purpose maintained throughout the response.
Reading/ Research	Attempts to present information in response to the prompt, but lacks connections or relevance to the purpose of the prompt.		Presents information from reading materials relevant to the purpose of the prompt with minor lapses in accuracy or completeness.		Presents information from reading materials relevant to the prompt with accuracy and sufficient detail.		Accurately presents information relevant to all parts of the prompt with effective selection of sources and details from reading materials.
Development	Attempts to provide details in response to the prompt, including retelling, but lacks sufficient development or relevancy.		Presents appropriate details to support the focus and controlling idea.		Presents appropriate and sufficient details to support the focus and controlling idea.		Presents thorough and detailed information , to strongly support the focus and controlling idea.
Organization	Attempts to organize ideas, but lacks control of structure.		Uses an appropriate organizational structure to address the specific requirements of the prompt, with some lapses in coherence or awkward use of the organizational structure.		Maintains an appropriate organizational structure to address the specific requirements of the prompt.		Maintains an organizational structure that intentionally and effectively enhances the presentation of information as required by the specific prompt.
Conventions	Attempts to demonstrate standard English conventions, but lacks cohesion and control of grammar, usage, and mechanics.		Demonstrates an uneven command of standard English conventions and cohesion. Uses language and tone with some inaccurate, inappropriate, or uneven features.		Demonstrates a command of standard English conventions and cohesion, with few errors. Response includes language and tone appropriate to the audience, purpose, and specific requirements of the prompt.		Demonstrates and maintains a well-developed command of standard English conventions and cohesion, with few errors . Response includes language and tone consistently appropriate to the audience , purpose, and specific requirements of the prompt.
Content Understanding	Attempts to include disciplinary content in explanations, but understanding of content is weak; content is irrelevant, inappropriate, or inaccurate.		Briefly notes disciplinary content relevant to the prompt; shows basic or uneven understanding of content; minor errors in explanation.		Accurately presents disciplinary content relevant to the prompt with sufficient explanations that demonstrate understanding.		Integrates relevant and accurate disciplinary content with thorough explanations that demonstrate in-depth understanding .

Sources in correct format included (2 points)

Total score: /30 points



Biodiversity: End of Term Paper Biology

Prompt

After researching human impact on biodiversity in regard to either **keystone species** or **invasive species**, write a magazine article (in *National Geographic* style) that analyzes and interprets data, in order to **propose a solution** to mitigate the impact of removing keystone species from an ecosystem or introducing invasive species into an ecosystem of your choice, providing evidence to clarify your analysis. What conclusion or implications can you draw? A bibliography is required.

Your Task

Students will:

1. Choose an environment they would like to research in terms of human impacts on biodiversity in regard to **keystone species or invasive species**.
2. Find at least two **reliable** sources of **data-driven** information on this topic. (Wikipedia is **NOT** a reliable source.)
3. Complete **one** of the following: the proposition support outline, thesis generator, outline for a feature article, and/or Question, Claim, Evidence, Explanation (QCEE) form.
4. Write a scientific article addressing the **prompt above**.

Format Requirements

- Typed, double-spaced, 12-point font, Times New Roman font, 1" margins, double spaced
- Three pages **minimum**
- Title page: title of paper, student name, class, teacher name, date
- Separate "works cited" page—**two source minimum**
- Minimum of three in-text citations

Thesis Development

A thesis statement is a sentence or two in your text that contains the focus of your essay and tells your reader what the essay is going to be about. Your thesis statement should state your position on the question/problem that is posed and the reasons behind your stance.

Example

In the Pacific Northwest, sea otters are a very important keystone species that enables the organisms of the environment to live harmoniously together. Removal of the otter population in the area would result in various negative environmental impacts including overpopulation of sea urchins, a kelp shortage, and an overall disruption of the ecosystem.



Works Cited/References

Citations

Your paper **must** have a works cited page, which needs to be **separate** from your actual essay. You are required to use **at least** two sources for this essay and cite them in APA format.

Examples

Book with One Author

- Name of author. (Year of publication). *Title of work: Capital letter also for subtitle*. Location: Publisher.
 - Calfee, R. C. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

Journal Article

- Name of author. (Year of Publication). Title of article. *Journal title*, volume number (issue number), pages.
 - Estrada, E. (2007). Characterization of topological keystone species. *Ecological Complexity*, 4(1–2), 48–57.

Website without author

- Article or website title. (Year, month, date of publication). Retrieved from <URL>.
 - All 33 Chile miners freed in flawless rescue. (2010, October 13). Retrieved from http://www.msnbc.msn.com/id/39625809/ns/world_news-americas/.

Website with author

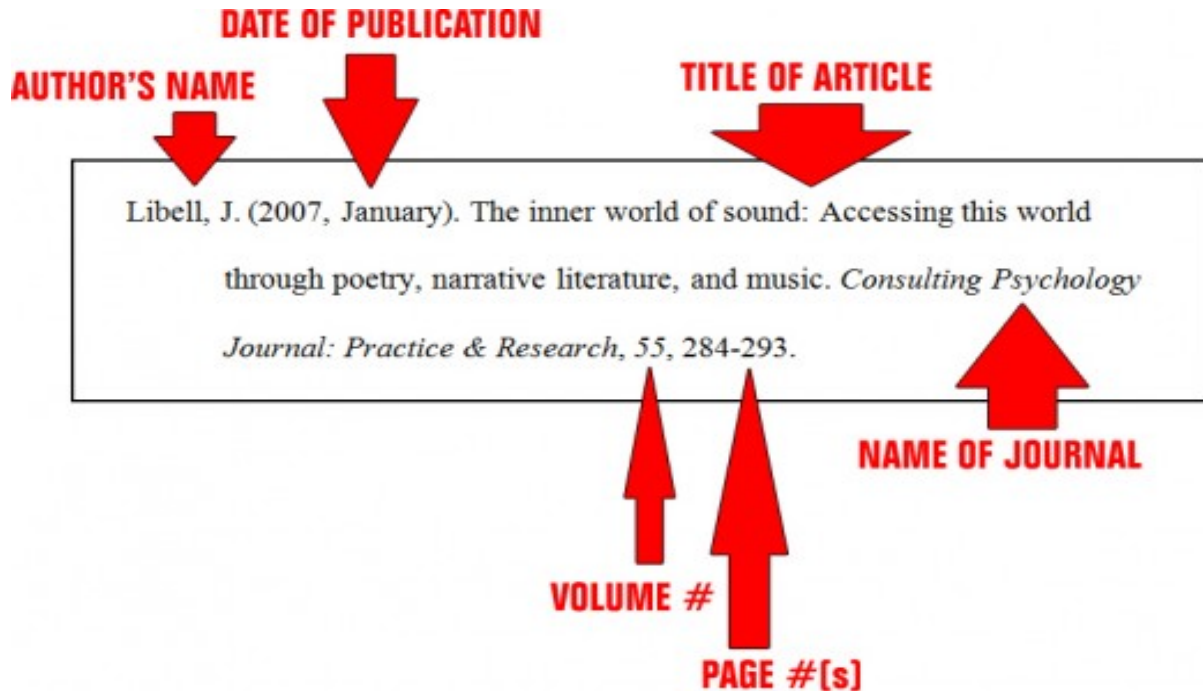
- Name of author. (Year, month, date of publication). *Title of Article*. Retrieved from <URL>.
 - Satalkar, B. (2010, July 15). *Water aerobics*. Retrieved from <http://www.buzzle.com>.

Newspaper Article (Print)

- Name of author. (Year, month, date of publication). Title of Article. *Title of Newspaper*, pp. (pages).
 - Schultz, S. (2005, December 28). Calls made to strengthen state energy policies. *The Country Today*, pp. 1A, 2A.

Newspaper Article (Found on the Internet)

- Name of author. (Year of publication). Title of Article. *Title of Newspaper*, volume (issue). Retrieved from <URL>.
 - Bernstein, M. (2002). 10 Tips on Writing the Living Web. *A List Apart: For People Who Make Websites*, 149. Retrieved from <http://www.alistapart.com/articles/writeliving>.



In-Text Citations

As a writer, it is your job to verify facts as clearly as possible for your readers. A reader should be able to quickly and easily verify anything and everything in your paper. Therefore, if you use a quote from an article, book, etc. or provide a fact, make sure you use an in-text citation to allow the reader to verify and give credit for that information. Per APA format, in-text citations should be formatted as follows:

- a. **Book:** (Author last name, year) → (Schwab, 2013)
- b. **Internet article**
 - i. **with known author:** (Author last name, year) → (Pallow, 2013)
 - ii. **without known author:** (*Title*, year) → (*Solving the Global Warming Crisis*, 2015)

Presentation Guidelines

Please see the National Geographic letter for presentation guidelines.



Proposition/Support Outline

Topic
Proposition
Support
1. Facts
2. Statistics
3. Examples
4. Expert Authority
5. Logic and Reasoning

Originally accessed from the www.iacademy.org.



Thesis Generator

Topic: Compare and contrast the different types of relationships humans have with nature. Include examples from your own experience and the different texts we have read or viewed. After comparing and contrasting, make a claim about what you feel are our rights and responsibilities toward the natural world in general. Provide reasons and evidence to support your claim.

Example

1. Identify the <i>subject</i> of your paper.	Relationships between teenagers and their parents
2. Turn your subject into a guiding question.	How does the relationship between teenagers and their parents change?
3. Answer your question with a statement.	As teens grow more independent, they resent and resist the limitations and expectations their parents impose on them.
4. Refine this statement into a <i>working</i> thesis.	Conflict between teenagers and their parents is a difficult but necessary stage in kids' development.

1. Identify the <i>subject</i> of your paper.
2. Turn your subject into a guiding question.
3. Answer your question with a statement.
4. Refine this statement into a <i>working</i> thesis.



ACE Response System

Answer
What is the article about and the main topic of the reading?
Cite
Give a citation that supports your summary (FATREDS*).
Expand
Give supports for why your citations are significant. Describe, interpret, predict and draw conclusions, make connections.

*FATREDS: Facts, Anecdotes, Testimony, Reasons, Examples, Details, Statistics



Example Outline of a Paper

I. Introduction/Thesis

- a. Tell the reader what an **invasive/keystone** species is, depending on which one you are focusing on.
- b. Give a **brief overview** of your organism and what it does for its environment—your **thesis** statement.
 - i. **For example:** *In the Pacific Northwest, sea otters are a very important keystone species that enables the organisms of the environment to live harmoniously together. Removal of the otter population in the area would result in various negative environmental impacts including overpopulation of sea urchins, a kelp shortage, and an overall disruption of the ecosystem.*

II. Body Paragraph I

- a. Tell the reader all about your organism.
 - i. What is it?
 - ii. Where is it normally found?
 - iii. Scientific name
 - iv. Diet
 - v. Size
 - vi. Coloring
 - vii. Anything interesting about it?
 - viii. Give the **facts** about the organism.

III. Body Paragraph II and III (maybe even IV)

- a. Discuss the reasons why your organism is an invasive/keystone species.
 - i. Give **specifics**.
 - ii. Give **details**.
 - iii. Let the reader know why it's labeled as it is (keystone or invasive).
 - iv. If you are focusing on a **particular location**, tell the reader about that location.
 - v. Tell the reader about the things that the organism has impacted.
 1. **For example:** *The wolves of Yellowstone feed on the elk population.*
 - a. Tell the reader why that's so important. What do elk do to the environment? How might maintaining or decreasing the elk population size be beneficial?
 2. **Another example:** *Jaguars feed on more than 80 different species.*
 - a. Tell the reader why that's important. Tell the reader some things about those species that jaguars feed on.

IV. Body Paragraph IV (or V)

- a. Talk about how **humans** have impacted this species.
 - i. Did we introduce it?
 - ii. Are we overhunting it?
 - iii. Human impacts on the species play a huge role in biodiversity; if we introduced it or are overhunting it, then we are impacting the biodiversity.

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V. Body Paragraph V (or VI)

- a. Solutions
 - i. If you are writing about a **keystone** species:
 1. What would happen if we took the species out of its environment?
 2. What could we do to fix the problem of its extinction?
 3. Is it being overhunted? Could we fix that somehow? (Laws, bans, rally, raise awareness, etc.)
 - ii. If it's an **invasive** species:
 1. What can we do to get rid of the species?
 2. What could we do to counteract/mitigate the problems it is causing?
 - iii. This can be **your** unique suggestion of a solution, but it would be good to have a resource to cite—especially if you are suggesting solutions that are already being implemented.

VI. Conclusion

- a. Summarize everything the paper presented.



Example Paper Layout

Jaguars—Keystone Species *(title)*

Jane Smith *(name)*

Biology *(class)*

Ms. Schwab *(teacher)*

May 27, 2014 *(due date)*

Actual Paper

I. Introduction

II. Discussion of organism

III. Discussion of why/how it's an invasive **or** keystone species

IV. Discussion of solution

- **If you are writing about an invasive species**, how could we get rid of it?
- **If you are writing about a keystone species**, how could we protect it?
- **If you are writing about a keystone species**, what could we do if it went extinct?

V. Conclusion

Works Cited

Estrada, E. (2007). Characterization of topological keystone species. *Ecological Complexity*, 4(1–2), 48–57.
Keystone Species. (2014, May 11). Retrieved from <http://education.nationalgeographic.com>.

Example of how to use in-text citations

- If you used the **first** reference, you would cite the source in your paper by putting (Estrada, 2007).
- If you used the **second** reference, you would cite the source in your paper by putting (*Keystone Species*, 2014).



Helpful links for students to use when researching their species of choice

Keystone Species Examples

- <http://examples.yourdictionary.com/examples-of-keystone-species.html> ↗
- <http://animals.about.com/od/animalswildlife101/f/keystonespecies.htm> ↗
- http://education.nationalgeographic.com/education/encyclopedia/keystone-species/?ar_a=1 ↗

Invasive Species Examples

- <http://www.nwf.org/Wildlife/Threats-to-Wildlife/Invasive-Species.aspx> ↗
- <http://www.invasivespeciesinfo.gov/animals/main.shtml> ↗
- <http://science.jrank.org/pages/3669/Invasive-Species-Examples-invasions.html> ↗



Peer Review Checklist

Author's Name: _____ Initial Peer Review Date: _____

Peer Reviewer's Name: _____ Final Self-Check Date: _____

Checklist items	Excellent	Developing	Needs work	Notes
Identifies the keystone/invasive species				
Gives adequate background and factual information on species				
Describes the reason why the species is known as invasive or keystone				
Lists one or more proposed solutions				
Provides adequate conclusion that summarizes paper's main idea				
Uses proper grammar and punctuation throughout				
Uses complete sentences				
Uses three or more in-text citations in APA format				
Uses two or more references formatted in APA format				
Includes title page with: name of paper, student name, class, teacher, and date				



Self-Check

Checklist items	Check
I have focused the paper on either a keystone or invasive species.	
I have given adequate factual information on my species.	
I have adequately described why/how my particular species is invasive or keystone.	
I have proposed one or more solutions to either help the keystone or mitigate the invasive species.	
I have included a suitable conclusion that serves as a summary of my paper.	
I have checked my paper for proper grammar and spelling.	
I have checked my paper for complete sentences and run-on sentences.	
I have included three or more in-text citations in APA format	
All information, thoughts, and quotes that are not my own have been properly cited , thus nothing is plagiarized in this paper.	
I have included two or more references used and formatted in APA format.	
My references are on a separate page.	
I have included a title page with: name of paper, my name, class, teacher, and date.	
My title page is a separate page.	
My paper is three or more pages long.	
My paper is formatted correctly—12-point font, Times New Roman, 1" margins, doubled spaced.	
I have stapled my rough draft to the back of my final paper.	

I affirm that this work is my **own**, I have **not** plagiarized, and this is my **best** work!

Name: _____

Signature: _____