

Biological Discovery extra credit

Extra credit is earned by writing a summary of a biological research article.

See course syllabus for number of summaries that may be turned in, number of points each is worth, and due dates.

Subject

Any aspect of biology

Articles

The article you are summarizing must be on original research conducted by the author(s).

Original research is research conducted by the author(s) of the article and is being published for the first time.

Research articles usually contain 5 sections and may contain subsections. The sections are:

1. Abstract – this is a very brief summary of the paper
2. Introduction – background information and why the research is important
3. Materials and Methods – the procedures used by the researchers
4. Results – the results of the study
5. Discussion – what the results mean and the significance of the study

In addition, the article you summarize must be 7 or more pages in length not counting the works cited but including figures and tables.

Some journals use different names for the sections and sometimes arrange them differently.

Each article will have an abstract, which is a summary of the article by the author(s). The abstract is much shorter than what you need to write.

Review articles cannot be used. Review articles summarize information on a particular topic using many research articles as sources. Review articles do not contain the sections noted above.

You may be asked to provide the article you are summarizing after your summary has been turned in.

Journals

Only peer reviewed journals may be used as sources of articles to summarize. Peer reviewed journals are those which publish scientific articles that have been reviewed by scientists knowledgeable in the field of study prior to publication.

Examples of journals that can be used: Biological Bulletin, Marine Biology, American Naturalist, Plant Physiology, Auk, Cell, Journal of Experimental Biology – there are many many additional journals that can be used

Examples of magazines that cannot be used: National Geographic, Discover, Scientific American, Popular Science, Science News, American Scientist, anything published by the BBC, and more – popular science publications (such as those listed above) are not peer reviewed journals

Format and length

-) Double spaced, except for the article citation
-) 12 point font, 1 inch margins, 1 to 2 pages
-) Use .doc, .docx, or .odt file formats
-) No title page
-) The top of the first page should be the citation of the article under review
 - o Citations should be written as a bibliographic reference:
Author(s). Year. Title. Journal Volume: page numbers.
Example:

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Nimoy, L and Kelley, D. 1967. Reproduction rate of tribbles varies with food intake. *Vulcan Journal of Biology* 2: 15-29.

) After the citation, double space then your name

) After your name, double space then your review

I do not grade by length or weight. A well written summary that is 3/4 of a page will be better received than a poorly written summary that is 2 full pages.

Example extra credit summary

Bulloch, J. B. 1983. Feeding ecology of the Tatooine sarlacc. *Mandalorian Academy of Sciences* 134: 213-230.

Harrison Ford

Write a paragraph or two about the introduction. The sarlacc inhabiting the planet Tatooine can be found at in the Great Pit of Carkoon. It is an ambush predator waiting within a pit for prey to approach. It uses tentacles to grasp prey and pull them into its mouth. The sarlacc is sessile and thus cannot relocate itself nor pursue prey. It appears to have a fondness for swallowing armored bounty hunters

Then a summary of the methods section. Radio collars were placed on banthas which were then released in proximity to the Pit of Carkoon. The movement of the banthas was tracked and the number devoured by the sarlacc was noted. A random walk simulation was built as a null model to determine if the banthas preferentially avoided or were attracted to the Pit of Carkoon.

Followed by a summary of the results. More than 80% of the banthas were consumed by the sarlacc. Bantha movement did not follow a random walk scenario and more banthas than expected moved toward the Pit of Carkoon.

Finally 2 to 3 paragraphs about the meaning of the results and the significance of the research. Bantha movement was preferentially toward the Pit of Carkoon and the predator residing within. This suggests that the sarlacc has a currently unknown method or methods for attracting prey. As Tatooine is a desert planet this seems to be the only method for a very large immobile predator to obtain adequate nutrition. Additional studies should be conducted on sarlaccs found on other planets to determine if all of them can attract prey or if this aspect is confined to the sarlacc on Tatooine.