

EART101: Morphology and ecology of Lower Cambrian archaeocyath reefs

This paper is based on data you collected from the Stewart's Mill and Harkless reef localities on the field trip. The goals are to compare the abundance of reef components and the size of archaeocyath central cavity diameters between lower and upper parts of the Stewart's Mill reef, and between Stewart's Mill and Harkless. You will compare your results to other findings (e.g., Rowland & Gangloff, 1988) and try to explain them in terms of biological, environmental, or other factors.

Guidelines:

Due: By the beginning of class on November 12, as a digital file in your eCommons drop box.

Length: No limit or requirement, but your paper will probably be 4-5 pages (double-spaced), not including figures.

Format: Because of the short length, you do not need a separate abstract. However, you should still include a descriptive title and organize your paper with introduction, methods, results, discussion, and conclusion.

Be specific when you report your results!! Detail (and avoidance of vague or redundant statements) will be one of the emphases in grading.

References: For this paper, you should include references for background information, when comparing your results to other work, or as necessary to support your interpretations. You do not need to search for references (unless you want to); you can use the Rowland & Gangloff (1988) paper and the Savarese (1992) paper.

The proper way to include a citation within the text is by giving the authors' last names and the year the paper was published. For example: "Archaeocyaths were the dominant reef-builders during the Early Cambrian (Rowland & Gangloff, 1988)." For papers with three or more authors, use the first author's name and "et al." (e.g., Rowland et al., 2000).

The full bibliographic information of all references cited in the text should be included after your conclusion (but before the figures and tables) in a section called "References Cited". They should be arranged in alphabetic order by first author's last name. Follow this format, listing all authors on the paper (the example only lists two):

Last Name Initials, Last Name Initials. Year. Article title. Journal title, Volume: First page-Last page.

Data analysis: Use the file reef_analysis.R in RStudio to analyze and plot central cavity diameters and archaeocyath abundance from the three different samples. The file is in the Field Trip folder in the Resources section of eCommons.