BIOL 311L: Sample Lab Report

*Note: wherever bold font is used, substitute your own results or information, and be specific! <u>Do</u> <u>not</u> copy this lab report, but instead use it as a guide. I expect you to add more detail and elaboration than I have provided here...(think about everything you did to culture and ID your bacterium, and provide those details in this report).

Isolation and Identification of a Bacterium from the Intestinal Tract of Tadpoles

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Abstract: In this study bacteria were collected from **the intestinal tract of bullfrog tadpoles (*Rana catesbeiana*)**, and cultured in the laboratory on **a nutrient medium**. One colony was isolated from the others **using aseptic techniques**, and the morphology of the colony and of individual cells was examined. Several staining techniques and biochemical tests were also used. Bergey's Manual of Determinative Bacteriology was referred to in order to identify the bacterium. The results of these assays suggest that the bacterium is a species of ***Bacteroides*, a common enteric bacterium (Family Enterobacteriaceae) found in the intestines of animals**.

Introduction: **Tadpoles serve as hosts for many different types of microbes. These microbes include bacteria, protozoa, and nematodes (Pryor and Bjorndal, 2005). These microorganisms could affect the health of tadpoles. For example... blah blah blah.**

In this study I isolated a colony of bacteria from the gut of bullfrog tadpoles (*Rana catesbeiana*). I relied upon common microbiological assay techniques to identify the bacterium.

Materials and Methods: **Bullfrogs (*Rana catesbeiana*) were collected from a pond on the Francis Marion University campus. The tadpoles were euthanized by pithing, and their gastrointestinal tracts immediately removed. The contents of the latter third of the gut were squeezed into a sterile test tube and homogenized using a vortex mixer. Aliquots**

of these gut contents were streaked across the surface of a nutrient medium (MacConkey Agar)....blah blah blah.

Results: **The bacteria were Gram negative, rod-shaped cells. On the Petri plate, the colony appeared...blah blah blah. The results of the biochemical tests are summarized in Table 1. According to Holt *et al.* (1994), the characteristics of this bacterium suggest it belongs to the genus....blah blah blah.**

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*Note: If there are more than 2 authors in a reference, when citing it in the text use the first author's name followed by *et al.* (which means "and other" in Latin). In the Literature Cited section, provide all authors.

Discussion: The results of this study suggest that the bacterium isolated from **the intestines of bullfrog tadpoles is a species of *Bacteroides*. This bacterium is a common gut inhabitant of animals (Todar, 2005) and is known to...blah blah blah.**

Literature Cited:

Holt, J.G., N.R. Krieg, and P.H.A. Sneath. 1994. Bergey's Manual of Determinative Bacteriology. 9th ed. Lippincott Williams& Wilkins, 787 pp.

Pryor, G.S. and K.A. Bjorndal. 2005. Gastrointestinal morphology, digesta passage, and symbiotic fermentation in bullfrog tadpoles (*Rana catesbeiana*). *Physiological and Biochemical Zoology* 78(2):136-154.

Todar, K. 2005. Todar's Online Textbook of Bacteriology, Accessed March 21, 2005: http://www.textbookofbacteriology.net/

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*To cite books: Author(s), date, book title, publisher, number of pages.
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Table 1. Summary of biochemical test results used to identify a bacterium collected from the gastrointestinal tract of bullfrog tadpoles (*Rana catesbeiana*).

Biochemical Test	Result
Gelatin digestion	+ (liquefaction)
Glucose Fermentation	+ acid, - gas production
blah blah blah...	blah blah blah...
blah blah blah...	blah blah blah...

*Note: please modify your table however you see fit. If you use the Create Table feature in Word, you can keep gridlines around each cell, or leave them hidden as I have done. Alternatively, you can use tabs to space out the table contents. Include the results of all tests performed. Keep the title above the table.