



**AMERICAN
SOCIETY FOR
MICROBIOLOGY**

Education Board

August 16, 2006

Sarah Boomer,
Natural Sciences and Mathematics
Western Oregon University
Monmouth, Oregon 97361

Dear Dr. Boomer

Thank you for submitting your laboratory exercise “Enumeration and Identification of Enteric and Pseudomonad Proteobacteria from Agriculture-Impacted Rivers, and an Exploration of Fecal Viruses and Protozoa” to ASM’s Microbe Library. The Curriculum Resources Committee recently reviewed this laboratory exercise, and felt that it met the criteria for publication with minor modifications required. I was the primary reviewer and I’d like to give you some feedback from our review conference to help you with the modifications.

Overall, we felt that this submission is very well presented and will good addition to the MicrobeLibrary Curriculum Resources. The committee appreciated the use of water as a unifying theme cross-cutting viral, bacterial, and protozoal contamination issues, and the innovative re-invention of the standard metabolic tests lab. Additionally we appreciated the connection between the metabolism of the Enterobacteriaceae and the Pseudomonads. I have outlined our areas of concern – please see the reviewer forms for more specific details on these topics. We would like to encourage you to make the suggested changes quickly and return the edited version to me, with the goal of publishing the activity in MicrobeLibrary in early fall.

- All media sources or recipes should be included, including storage conditions.
- Make specific reference to BSL2 handling of cultures, as there is a high probability of presence of pathogenic species - there is need of more emphasis on safety. (Both instructors and students versions)
- Define 10 point scale – we are assuming that a ‘10’ is best, but this should be explicitly stated.
- Please use the terms ‘lactose+’ and ‘lactose- enterics’ rather than the terms ‘coliform enterics’ or ‘non-coliform enterics’. The term ‘coliform’ is not an accurate descriptor, as there are lac-coliforms. Please see review 2 for more discussion of this topic. This will require re-writing of the first paragraph of Appendix 1: Lab protocol.
- Indicate time required for instructor preparation
- Please provide more information on control and known organisms.
- What does “perfectly” streak mean, or ‘good’ or ‘bad’ plates? Please be more descriptive for other faculty/students for whom this lab will be adopted.
- As written, the exercise verges on a cookbook style lab. Are there suggestions you can make in the modifications section that would allow and expansion of student inquiry? Expand water sources and sampling locations?
- The antimicrobial testing directly on Mac plates is not a true Kirby Bauer test. One committee member identified that they are able to transfer river isolates first to TSB, rather than NA, prior to plating on Mueller Hinton plates for assay. Another committee member felt strongly that if one is teaching Kirby Bauer and antimicrobial susceptibility, the protocol must be done correctly. The



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inclusion of the antimicrobial sensitivity testing should be expanded to include discussion in these areas, maybe with reference to the literature.

- Reviewer two has identified some grammatical and spelling corrections that need to be made.

Please find attached the evaluation forms and review criteria the committee used in the review process. We hope that you can use these to aid your revision process.

We do ask that you review and sign the attached copyright agreement form, which states that ASM has the non-exclusive right to publish the activity in the MicrobeLibrary. Contact Jean Kayira at ASM with any questions regarding the copyright agreement. She can be reached at <jkayira@asmusa.org> or by phone at 202-942-9299.

Again, congratulations for developing this innovative exercise. I do hope that you will quickly make the modifications necessary for publication in the MicrobeLibrary. I also strongly urge you to contact me (607-871-2785 or cardinale@alfred.edu) if you have any questions regarding the comments above.

Sincerely,

Jean A. Cardinale, PhD
Chair, Curriculum Resources Editorial Committee
Associate Professor of Biology
Alfred University

Attachments