

BIOS 487/887 – Field Parasitology, 2009 Overall Evaluation

As indicated on Friday, I try to give all my classes an overall evaluation, from the instructor's perspective. This evaluation is mainly an attempt to make the university's programs more meaningful than they would be otherwise, but it's also a way of passing along observations that might be of value in other classes.

(1) Material: Most years at CPBS the Field Parasitology class uses two video cassettes, and some years we've used three. This year we didn't finish one, a sure indication that we really didn't have much material to work with. Thus I never felt that we adequately achieved the comparative biology lessons so essential in biology, and that failure was no one's fault except Mother Nature. Nor were we really able to deal with population and community diversity in a comparative way as a group, thus never were able to demonstrate the principles, and work our way into concepts, quite as strongly as I'd hoped. I was pleasantly surprised by the damselfly larval populations at Little Beckius, the really nice snail populations in a couple of places, and our ability to collect small green sunfish from Big Beckius. Looking back on the summer, if I had this year to do over again, I'd probably spend quite a bit more time on class exercises involving those places, and their host-parasite systems, than we did. My past experience, however, indicates that CPBS classes can get bored in a hurry by seeming to do the same things over and over again, which is the main reason I try to work in a variety in collecting sites and goals. By the end, especially with some of the projects, you were able to exploit some of those systems pretty well.

(2) Writing: Your writing this session was truly excellent, much better in terms of paragraph structure, flow of ideas, rationale, etc., than that of most recent classes. Out of all those papers, all session, I might have circled a hundred words or phrases at most (which is not very many), and a lot of those were style matters rather than outright grammatical or spelling mistakes. I posted some of your pieces on Blackboard, but there were plenty of others that were very well done. Our UNL BioSci students in general, however, seem to struggle with concepts and ideas, especially big, over-arching, concepts and ideas. I'm not sure where this struggle originates, but I certainly see it in other classes, no matter what the level. So when I encourage you to continually think big, think in terms of general principles and models for testing them, then that encouragement stems from listening to, and reading papers written by, hundreds of other UNL students from those in BIOS 101 to those working on doctorates. The sequence of topics for discussing your work in public should still be on Blackboard (as it was on the whiteboard in lab), and I strongly encourage you to copy that sequence and use it regularly as a guide to thinking, writing, and talking about science. Biology majors, including pre-health professions, see also the comments below under (5).

****I would greatly appreciate electronic copies of all your papers from this summer; just save them as Word 2003 files (*.doc instead of *.docx) and send them as e-mail attachments.****

(3) Projects: It's always important to remember two things: first, that you end up having about a week and a half at most to decide on a project; design your approach and write your hypotheses; acquire whatever technical skills you need to do the work; make, correct, and learn from your mistakes; repeat the work enough to generate a good data set; learn how to access and interpret

relevant primary literature; and, bring the project to closure with a paper and a presentation. Second, most of you have never done this sequence of acts before, especially with exotic and microscopic materials in a strange setting while being bombarded with formal class work and collection requirements, too. The reason I asked you to review those graduate theses, and to have Elaine talk about her work, was to help you understand the size of your project's challenge, and to understand how conceptually interesting research can grow out of exactly the same kinds of work that you did at CPBS. Most of the projects you actually did could easily consume an entire summer of full time work, and probably should consume a year or two, in order for their full conceptual strength to be realized. I tried to make up for the time difference (1 ½ weeks vs. 1 ½ years) with comments after your oral presentations on Friday. Those presentations, by the way, were very good and aside from the design and amount of data could easily have been seen at a regional scientific meeting.

(4) Collections: Your collections were very similar to those of other years, although the kinds of specimens tend to vary quite a bit depending on what we are actually able to collect. There were a few unusual and very interesting slides produced this year. I hope that you came away from the collection experience with a better understanding of diagnostic material—how it's made, what role artistic technique plays in diagnosis and identification, etc. In general, the collection lessons apply to all material gathered for diagnostic purposes, not just parasites from wild animals.

(5) Frustrations: If I had any frustrations this summer, it was with the lack of preparation that juniors and seniors-to-be should have received from my fellow faculty members back in Lincoln. For the last 3-5 years, all my classes (BIOS 101, BIOS 381, BIOS 385, BIOS 487) have struggled, often seriously, with the language of biology (scientific names: their significance, their utility, and their literary forms), organismic biology (simple awareness of diversity in nature; structure and names of common plant, animal, and fungi groups; recognition of common plant and animal groups, etc.), microscopy skills, dissection skills, and use of the primary (original journal article) literature. It's never been clear to me, especially in recent years, that our introductory 3-hour canned laboratory exercises teach the essential skills needed by an upper division biology student. Nor do 40 lectures straight out of some textbook, supported by publisher-supplied PowerPoint slides in a large auditorium, teach the essential language and information-retrieval skills. For a course like Field Parasitology, students needed to have been asked to **DO** tasks that in their very doing taught at least some of these essential skills. For those two former BIOS 101 students in class, your weekly BIOS 101 writing, follow-up self-assessment, and portfolio were all an attempt to make up, at least a little bit, for what I saw as these failings in other sections and courses. If you have another year or two at UNL, I strongly suggest continuing to develop some of the skills you were asked to use this summer as the opportunities arise; you will stand out like the proverbial sore thumb, but in a positive way, in other biology classes.

(6) Sociology: I greatly appreciate the fact that there didn't seem to be any hostility, snotty-ness, crude and rude behavior, disrespect, etc., shown toward your fellow students in this class. Trust me, it's happened before, but you seemed to get along well with one another, including your project partners (which is always a plus). You also seemed to show a great deal of respect for one another's slides, work places, and tools, and it was very easy to retrieve all our equipment

(including the blue buckets!) at the end. Nor did I see much in the way of self-destructive, outside-of-class behavior (again in contrast to some other years, when it was plainly obvious). Mutual respect and safe behavior among students always make for a good session, so I thank you for that.

Again, thanks for coming to CPBS and for taking Field Parasitology. You are all welcome in BIOS 385 during the spring, and if you want a preview of what that course is like, let me know and I'll "enroll" you in last spring's section so you can have access to the Blackboard site. I also encourage you to take Alaine's BIOS 381 if you can work it in this fall. That is really an unusual eye-opener course that's not likely to be taught again and it's limited to 16 students. E-mail her (laine244@yahoo.com) for information about how to access her web site and BIOS 381 materials from last fall.

Have a good 2009-2010 school year!

JJ

<http://bsweb.unl.edu/labs/janovy>