

TECHNIQUES SYMPOSIUM
(25 points, due week of 16 February)

The purpose of this assignment is to gain familiarity with some of the techniques used to capture, mark, and monitor animals for behavioral research. To make the exchange of information as efficient as possible, each of you will be asked to read about a specific technique, which you will then explain to the class during the lab period next week. We will draw slips out of hat in lab the week 9 Feb to assign topics and then you will have a week to do a little reading about your technique and to prepare a brief written and oral presentation describing the technique. Two of you in each lab section will receive the same method, so you can work together to plan the presentation. The specific assignment is as follows:

Abstract (20 points). Prepare a brief (1 page) abstract describing the technique that you were assigned. The abstract should contain a 1 paragraph summary of the technique, including how it works, what types of animals or research problems that it's best suited to, and any common problems that can occur when using the technique. At the end of the abstract, list 2 references that you looked at that either (1) describe and evaluate the technique or (2) use the technique and describe it in sufficient detail that someone reading the paper could apply the same method in their own research (references may be web page addresses). It's critical to keep your abstract to 1 page. Although you can work together to prepare the oral presentation, everyone should prepare their own abstract.

Presentation (5 points). You will have 5-7 minutes to describe the technique you researched to the rest of the class. This is not intended to be high pressure, so don't get too worked up over speaking in front of everyone! Basically, you are just conveying to your classmates the same information contained in your abstract. Overheads or other visual aids can be used, but are not required. For many of the techniques assigned, we can help you come up with demonstrations if you would like – just email Sam during the week (before the day of your presentation) and tell us what topic you have and we will let you know what we have for demonstration material.

To help get you started, we have put a couple of books on reserve in the BioSci library. These include:

Heyer, W. R. 1994. *Measuring and monitoring biological diversity: standard methods for amphibians*. Smithsonian Institution Press.

Wilson, D. E. et al. 1996. *Measuring and monitoring biological diversity: standard methods for mammals*. Smithsonian Institution Press.

The topics:

Capture methods

Box traps (e.g., Shermans)

Mist nets, Cannon nets

Tranquilizer darts

Marking methods

Ear tags

PIT chips

Dye marking

Freeze branding

Genetic sampling methods

Blood samples

Ear punches

Hair or feather samples

Fecal samples

Observational methods

Satellite tracking

Remote photography