BIO 45 -- Journal Exercise #1 -- Due 20 September - in class

DESCRIPTION OF BEHAVIOR

In this exercise you will "simply" describe the behavior of animals. You may add questions or speculate in your journal, but **focus on the detailed description of empirical behavior** (see Discussion #1 handout). We should be able to visualize what the animals were doing and how they did it by reading your descriptions- sketches can help. You are also encouraged to watch and comment on your own observational biases.

OK, so you're stuck. You've never watched animals behave. What do you do? Watch a pigeon. Describe in detail how it moves. Note changes in posture or sequences of actions. Eventually it will meet another pigeon. Describe what it does and how it does it -- describe its posture, shape, gait, and tail position. If you are **patient**, you'll see a full range of behavior from feeding to aggression and possibly reproduction. You do not need to go to the zoo or other exotic places. There are plenty of animals on campus. You may watch pets, but not for more than a third of you observations. Stay away from spiders -- they do not do much. The first discussion section will help you with finding and observing animals. There are more hints on the Bio 45 web site (www.brown.edu/Courses/Bio_45/).

Get in a lot of observation time. We want to read about what the animals were doing not about your attempts to find them or your interactions with them. Focus on details, details, details! Don't just say that the squirrel ran to the tree. Tell us how it ran. Did it gallop or hop? What did its tail do? Did it stop and look around on the way? When it got to the tree where did it go? Straight up, around the other side? How did it get back down?

Remember that you are a visual animal and that much of the behavior of other animals may have little to do with vision. Try paying attention to sounds - descriptions of birds singing or crickets chirping. Somewhere on campus there is a cricket (up in the trees) whose chirp rate will tell you the temperature (Chirps in 15 sec + 40 = air temperature in ˚F where cricket is) -- find it!

ASSIGNMENT

Before you start, review the Journal Basics handout you got the first day of class. Make sure you **include all of the required information with each observation** (repeated on the back of this handout) **and** that you **include everything assigned below**. You will be graded on the following for each journal exercise: 1) was it on time?, 2) was the assignment completed? and 3) did you do at least the minimum observations? Please note that the hours of observation we expect per week **does not** include time spent finding animals and should rarely include long periods of watching animals that are doing nothing.

Each day describe the behaviors of animals you watch for **at least** 15 min.-- preferably for more than 30 min. **Your goal is about 6 hours of observations** between 9 and 20 September. That is 6 hours of watching and describing the animal, not 6 hours of looking for them. Try to watch several kinds of animals and the same kinds at different times and places. Don't give up and look for something more interesting after 2-3 min. All animals are behaving all the time and the really interesting stuff doesn't happen very often. Be there long enough to catch the rare events. If the animals keep running or flying away, you have to learn more about their behavior **before** they will let you watch them!

1. For each description identify the animal, where you watched it, what time it was, and what the environmental conditions (e.g., in the sun, while it rained, ...). Be as detailed as possible in the description. Make a sketch of the animal to identify parts you don't know the names of.
2. Keep track of things like: how you chose the animal, what your thoughts were about how to describe it and where you were "guessing" as opposed to purely describing. This will give you insight into how previous experience, sampling error, lack of knowledge about anatomy, taxonomy, physiology and so on influence what you see and how you describe it. But, do not spend the majority of your time describing what **you** were doing or thinking..
3. From all of your observations, **clearly mark the 3 observations** you would most like us to read. We will browse through your journal but focus on the selections you pick. We need your help in making it easier for us to find and read things. If your notes are a mess (and they might be because you take them as you watch) maybe you could transcribe one of your observations for us to make it easier to read.

Over ➔

Things You Must Do for Every Assignment

1. Turn in Your Journal on Time.

On the dates listed on the Reading List, give your journal to your teaching assistant at lecture. It will be returned to you by Wednesday (or Friday) with our comments. The journal assignments must be completed on time. We will return incomplete journals to you at the next lecture and expect them back, completed, by the following lecture.

2. Pay close attention to the assignments -- be sure to complete them!

Although the journal is intended as an open-ended learning tool, each assignment is designed to help you enhance your ability to see, describe and interpret behavior. You must complete the assignment as requested. Take the assignment sheet with you when you observe.

3. Include the following at the beginning of each observation:

Date - e.g., Friday, 10 September

Location - e.g., sidewalk between Sciences library and Chemistry building

Organisms observed - e.g., workers of a colony of ants - foraging at piece of ice cream cone

Weather and comments about conditions - e.g., windy, partly cloudy and cold. Rained a lot yesterday - standing puddles on walkway. Sun shines directly on sidewalk.

Starting time of observations -- ending time of observations - e.g., 1:35 to 2:20

Record the time every 5-10 min. as you are watching, or as major events occur.

4. Structure your journal so we can easily find weekly assignments.

Clearly label each exercise you are doing. Guide us to the relevant bits (Post-It notes are great!).

5. Leave us room to make comments and answer your questions.

6. Record your observation and brainstorming times on the calendar we will provide.

7. Use a hard cover, bound notebook (e.g., Chemistry lab book)

If you need to add an observation when you do not have your journal, use separate sheets of paper and then paste or staple them into your journal later -- do not add loose pages.

8. Write as you watch, not hours later.

Messy writing and first hand observations are better than neat writing and edited observations. However, we still have to be able to read your notes. You can always summarize your observations to help us through a chaotic page or two of field notes.

9. Try not to interfere with the animals you watch. Be patient, stay still for at least 15-20 minutes before you give up on an individual. Don't try to get too close.

Here are some brief journal entries to give you an idea of what we prefer:

Poor entry:

1:00 -- Went to the Green to watch squirrels. None around, so I went to Lincoln Field. Saw one and walked over to it. It ran away, up the tree. Looked like it was afraid of me. Sat up in the tree moving its tail angrily. After a while a friend came by and we both watched the squirrel. We moved away and it came down the tree to look for food. It ran across the grass to another tree and went up it...

Better entry:

1:15 -- Watching squirrel at Lincoln Field. As I approached it stood up on its hind legs and looked at me. Held its front feet close to its chest and its tail was tight to its back and curled away from its body at the tip. I took another step and it ran to the nearest tree. Running looked like a series of very fast hops - both front feet touch the ground and then both hind feet and then a leap forward about 6-10 inches and lands first front and then hind feet... It spiraled up the tree (head first) and stopped on the first big branch. Facing me again. Same posture as before (on hind feet, front feet up, tail up). But now the tail is flicking rapidly at the end.

1:20 -- Still on branch. Tail flicking. I move about 10 feet away.

1:30 -- Squirrel came down the tree -- wow! he walked down head first.....