#### DEVELOPING AN ETHOGRAM

There are approximately 5 steps to creating an ethogram. Here they are, in order:

## 1. What's your question?

-You need to have an idea of what your basic question is. Are you interested in how a group of animals interact together? Levels of abnormal behaviors, like pacing? This will guide what you then look for in step #2.

#### 2. Informal observations

-At this step, it's largely field notes. You observe the animals of interest, writing extensive notes about what the animals typically do. One main step here is trying to discriminate between mutually exclusive behaviors (e.g., sitting vs. lying down). You'll need to use these notes to come up with your actual behavioral definitions/operationalizations.

### 3. Deciding on behaviors

-Once you've finished your informal observations, you'll need to come up with all the behaviors you want to observe, and then specific definitions for each behavior. Generally, you split behaviors into classes of behaviors. For instance, "inactive" may be an entire class of behaviors, with "lying down", "sitting", "standing", etc., all being behaviors under that class.

# 4. Defining behaviors

-Once you've decided all the behaviors, you need to define them. In defining behaviors, you need to be specific about the observable event that occurs. In other words, don't impute any feelings/emotions into how the behavior is defined (e.g., animal is tired). They generally should be mutually exclusive (any one event can only fit into one behavior) and exhaustive (every possible event can be accounted for by a defined behavior).

### 5. Determining recording intervals

-After you've come up with your ethogram, you need to decide how you will record them. Generally, I use instantaneous time sampling methods (pinpoint sampling), where you record whatever behavior occurs every 'x' period of time. For instance, you might record whatever an animal does every 30 seconds for 1 hour. Whatever occurs on the 30 second beep is what is recorded.

-There are other methods that could be used, depending on the type of question you ask. If you think you want to use a different method of recording, consult an ethological methods book, such as Philip N. Lehner's Handbook of Ethological Methods, Second Edition.