ETHOGRAM DEVELOPMENT ASSIGNMENT

RMC Mate Compatibility Workshop

ASSIGNMENT

This week you will be working toward developing an ethogram for your species. Many species may have basic ethograms available through your institute's welfare/research/conservation team, scientific literature, and/or online. We encourage you to do some research prior to observing, so you have a basic idea of what behaviors you may encounter in your species. It is also a good idea to make this into a team-building exercise if you have the ability! Work with the keepers, research staff, volunteers, and anyone else who may have intimate knowledge of the species' behavioral repertoire or may want to individually go through the exercise, so you can pool your ethograms at the end. You can spread out observation sessions to think about/research your ethogram, but what you have decided on for your final ethogram, should be put into the **Ethogram Template** Excel Spreadsheet.

FIRST TASK Ad libitum observation – 30 minutes

Thirty minutes (or more) ad libitum (record everything you see). You may want to start out with just a written description of the behavior you are witnessing and then name it afterwards. Try to be as subjective as possible and make sure behaviors are mutually exclusive (i.e., do not overlap with another behavior) but recognize that this is not always possible. For example, many vocalizations can occur while an animal is locomoting, but you will want to have a code for each vocalization you feel is important.

Please fill out the following table with observed behaviors as you conduct your observation. Provide any notes or questions you develop that may affect how you eventually code your behaviors. A few examples have been given below for general individual behaviors that most species will have. **Example ethograms** for giant panda, iguana, and 'akikiki breeding behaviors have also been provided in the folder for this week. Also, consider searching the web, YouTube, and nature documentaries for breeding behaviors you may encounter.

Behavior	Short Code	Definition
General Individual Behaviors		
Not Visible		Animal wasn't in view most of the time. Is it important to note that they were in the inner bedroom? Or when they went out of view to investigate the female's cage?
Feed		Animal is eating bamboo and keeper-provided food of apples and panda bread.

Locomote		Walking around the cage. Sometimes animal doesn't walk that much so maybe we should put a minimum number of steps? This behavior will overlap with others because the bears can vocalize while walking.
Other		Any behavior not covered in the ethogram
Affiliative		These behaviors are defined as friendly and peaceful acts exchanged among individuals.
Proximity		Individual is less than or equal to one body length of a conspecific.
Barrier Contact		Animals is at howdy door/barrier or in very close proximity to it (less than 30cm)
Aggressive		These behaviors are defined as harmful with the intention of inflicting damage or other harm. They may occur either reactively or without provocation. Typically involve access to resources and breeding

		opportunities and to establish a dominance hierarchy.
Chemical Communication Behaviors		These behaviors may be associated with attracting a mate or territorial marking such as urinating, defecating, scent marking, anogenital marking, scratching surfaces, etc.
Vocalizations/Auditory Cues		These behaviors are noises that are emitted by your species. While most will be “vocalizations”, remember that many animal species use nonvocal communication tools (e.g., vibrations of jumping spiders constitute species specific “songs").

Female Sexual Behavior		These behaviors are most often seen in females during breeding season.
Male Sexual Behavior		These behaviors are most often seen in males during breeding season.

SECOND TASK: Create an ethogram ~ 15 minutes

Using your first observation notes and any ongoing observations, spend some time to make an ethogram of the behaviors you expect to see during your later observations. The ethogram should be as complete as possible, describing as many discrete behaviors as you observe. Include drawings if appropriate. When you are finished filling in the form from the 1st Task, transfer it to the Ethogram Template. Edit/add to this ethogram as you continue finishing the below observations or as needed. You will fine-tune this ethogram down to those most important to mate compatibility. Your final ethogram in the Ethogram Template should be completed before moving on to Week 3.

THIRD TASK: Focal Continuous sampling - 20 minutes

From your final ethogram, select the behaviors you think will be most useful for mate compatibility research. Use your ethogram to do a 20-minute focal sampling with at least one individual in the enclosure (more observations will give you a better idea of your needs). The value of focal sampling is that it can be used to construct accurate time budgets based on individuals. Record the timestamp round to the nearest minute (e.g., 2:31pm), the short code of the behavior, and any individual the behavior is directed towards (Recipient of Behavior). Feel free to fine-tune your ethogram with multiple observations. You can print multiple copies of this sheet.

Species		
Individual		
Date & Start Time		
Location		
Time	**Behavior**	**Recipient of Behavior**

SAVE **PRINT**