Cathleen R. Cox, PhD   Los Angeles Zoo/UCLA
Instructor   Biology 480.31, Sep 24-Dec17, 2024

OBSERVING ANIMALS: BEHAVIORAL STUDIES IN ZOOS

This is a practical course designed to train participants in techniques used in observational research, both in the zoo and in the wild. The first four lectures will be accompanied by assignments to be done at the zoo outside of class which provide the experience of "field testing" the lecture material. Several projects will be described in the fourth lecture (October 15) and you may select among them. Each group will be trained at separate times on Saturday, October 19 (training times to be specified on October 15). Each participant is to collect 10 hours of valid data during daylight hours over the next 4 weeks and class time will be used to refine data collection procedures and check inter-observer reliability. On November 12 participants are to bring raw data collected to date to class where we will focus on data tabulation. In the following class participants will be given Excel templates and shown how to enter the data into spreadsheets. All data needs to be collected, tabulated & entered into Excel and submitted to the instructor by end of class on Tuesday evening, November 26. The data will be statistically analyzed and returned to study groups on December 3 participants will interpret and discuss findings. On December 10 study groups will prepare presentations and written reports to be given and submitted December 17. In short, there is lots of work to do, and lots to gain from it.

Participants enrolled for credit/letter grade need to complete the initial 4 assignments and contribute to a group project. Students enrolled for credit/P/NP need only complete the initial 4 assignments. Handouts and examples of assignments accompany each lecture and assignments are to be done in the manner illustrated in the examples. Each assignment requires approximately one hour of observation time on zoo grounds as well as an additional hour of write-up/summary time. Participants enrolled for credit are to submit their work which will be reviewed and returned with helpful feedback. You are welcome to use the feedback to redo and resubmit assignments so that your final grade represents thorough learning and your best work. **Please review each assignment** shown below as well as the handouts/example(s) given in class before embarking on assignments.

Class is held Tuesday evenings from 7:30 to 10:00 at Los Angeles Zoo in classroom C of Discovery Education Center. There is also the option of attending evening classes remotely via Zoom.

Date	Lecture Topic	Assignment
Sep. 24 Tuesday	Introduction Why study animals in zoos 　Applied research 　Basic research 　Examples of successful projects 　Basic equipment and supplies Identifying Individuals 　Natural markings 　Artificial markings	Spend an hour at the zoo and attempt to identify all the individuals in each of several exhibits. Select one exhibit that contains 4 or more individuals of a species for which you have not been given an ID chart and construct an ID chart which enables the user to identify each of the individuals in the exhibit. The chart should be on a single page in matrix format with separate column headings including "name" as well as other categories which enable you to distinguish between individuals such as "size", "color", "scars", etc. Each individual should be listed/described in a separate row and their distinguishing characteristics given under the appropriate headings. Diagrams or sketches may be very helpful -- see ID handout. Note: you may not know the house name but can assign your own based on the individuals' characteristics; if your description is sufficiently detailed we will provide house name as well as ZIMS #s & birthdates.
Oct. 1 Tuesday	How to Observe Behavior Environmental Parameters 　Objectivity 　Reliability How to Describe Behavior Constructing Ethograms 　Units of behavior 　Functional categories	Observe a species in an exhibit for one hour. Focus on only one individual at a time. You may focus on one focal animal for the entire hour or observing each of the individuals in the exhibit for an equal number of minutes which should total one hour. For example, if there are 4 individuals, observe each for 15 minutes. Before starting, describe who you are observing, how long each individual is observed, and the social and physical setting. Then describe the focal animal's behavior in detail as it occurs. Afterward construct an preliminary ethogram, making a list of recognizable units of behavior you observed and giving a brief description/definition of each. Assign each behavior to a functional category, referring to the handout provided in class. Submit both the ethogram and the description of behavior on which it is based.
Oct. 8 Tuesday	Social Networks Territories 　Dominance hierarchies 　Social matrices	Observe a group of four or more recognizable individuals for at least 1 hour and record all social behavior. If you are able to record 20 or more wins/losses or 20 or more grooming or play interactions, work out dominance or grooming or play relationships and diagram the hierarchies

Date   **Lectur**   _____