

LECTURE GOALS:

- Learn the formal rules for sampling and recording behavior.
- Appreciate the various goals of a zoo.
- Learn about the conservation efforts of the Oregon Zoo.

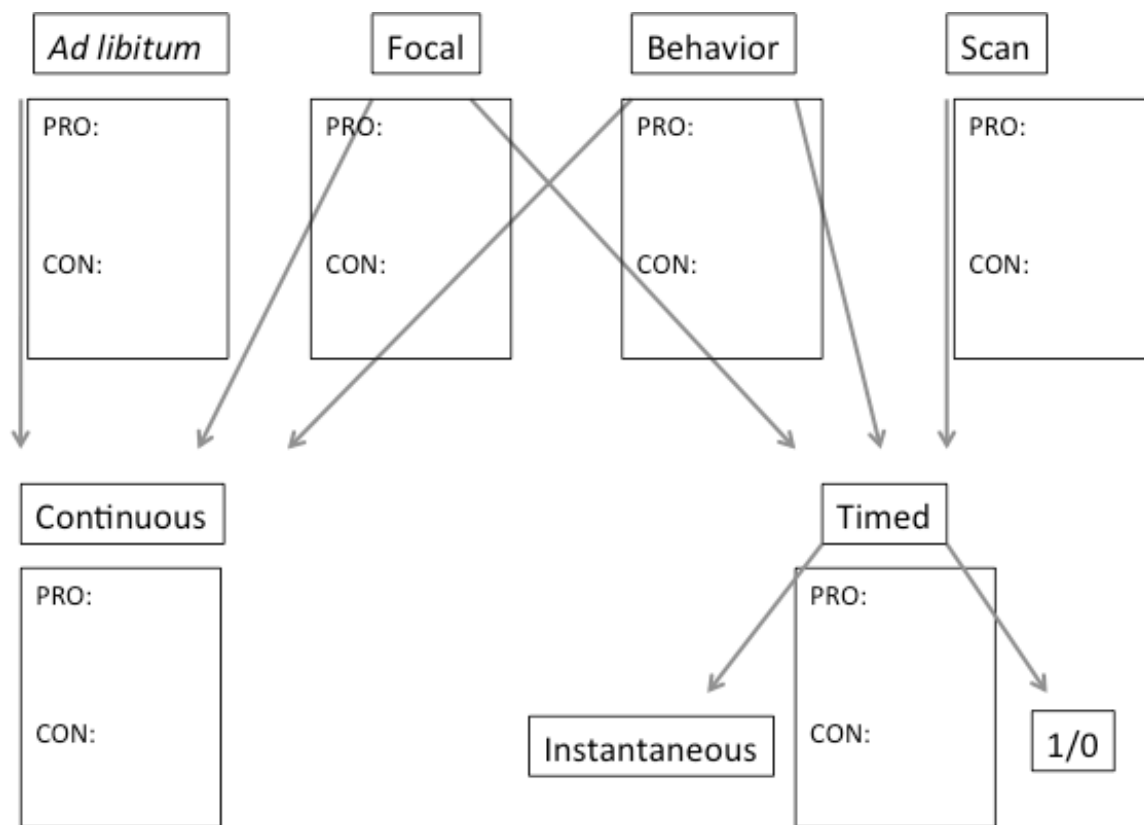
LECTURE OUTLINE:

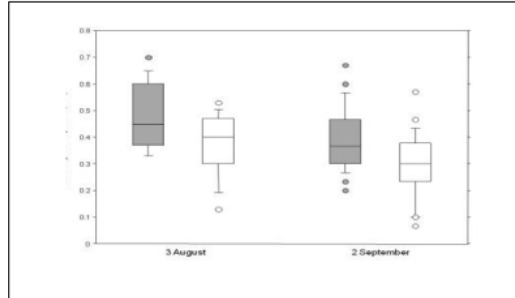
1. Some behaviors are best measured as states (duration, intensity, proportion of time) while others are best scored as events (count, rate, interval, latency).
2. Animal Behaviorists have moved away from “species-typical” thinking and shifted the focus to individual variation.
 - a. Individual variation may represent alternative strategies.
 - b. Individual variation may represent environmental noise.
 - c. Individual variation may represent “personalities”. (more later in the term)
3. Sampling rules (or techniques) define what is the object of observation.
 - a. *Ad libitum*
 - b. Focal
 - c. Behavior
 - d. Scan
4. Recording rules (or techniques) define when to make the observations.
 - a. Continuous
 - b. Timed
5. There are advantages and disadvantages to each such that an experimental design that employs a combination of techniques may be most appropriate.
6. Conservation is more than housing and breeding endangered animals.
 - a. Animal welfare
 - b. Species recovery
 - c. Education/outreach - behavior change
 - d. Science
 - e. Citizen Science
 - f. Funding
 - g. Stimulate discussion and dissemination
7. The Oregon Zoo is involved in many conservation efforts
 - a. Oregon Spotted Frog
 - b. Pygmy Rabbit
 - c. Western Pond Turtle
 - d. Oregon Silverspot Butterfly
 - e. Taylors Checkerspot Butterfly
 - f. California Condor
8. Field Research can benefit from Zoo research.
 - a. Testing techniques
 - b. Diet energetic studies
 - c. Baseline values
 - d. Disease
 - e. Basic Biology
9. At the Zoo this week you will be using various sampling and recording techniques and preparing a proposal for a research project that could be conducted at the zoo.

HELPFUL FIGURES & NOTES:

(All PowerPoint files will be available on the courses server after lecture. The subset of figures and notes here are meant to assist your note taking or studying.)

Recording and Sampling rules





VOCABULARY:

(Practice writing interesting, informative sentences that include, and capture the meaning of, 4-5 words from this list. To simply memorize a definition, is not sufficient.)

Ad Libitum

Focal Sampling

Behavior Sampling

Scan Sampling

Continuous recording

Timed recording

Animal Welfare

Genetic Diversity

Inbreeding depression

Domestication

Species Survival Plan

Conservation

Citizen Science

PRACTICE EXAM QUESTIONS:

1. When is it appropriate to use 1/0 recording?
2. What types of behavior is "Behavior" sampling most appropriate for?
3. When is *ad libitum* sampling the most useful?
4. Describe a behavioral observation experiment that would effectively use both focal and behavior sampling simultaneously.
5. What is the mission of the Oregon Zoo?
6. Describe at least one conservation project that involves the study of animal behavior that is being conducted at the Oregon Zoo.
7. What is the value of Citizen science?

READING FOR TODAY: (readings in grey support the lecture but are not absolutely required)

Read the lab handout

Read Martin & Bateson chapter 5, & 6.

THURSDAY:

Students teach from Byers chapters.

TAKE HOME EXAM ON MOODLE TIMED DUE BEFORE LECTURE TUESDAY

READING FOR NEXT WEEL LECTURE:

Byers chapter 10

Endler & Bssalo (1998) Sensory ecology, receiver biases and sexual selection TREE 13:415-420.

Hurd,P.H. (2010) Honest Signals. in *Encyclopedia of Animal Behavior*