

*******EXTRA CREDIT*******

OBSERVATION OF LIVING PRIMATE BEHAVIOR AND MORPHOLOGY

(Adapted from France, 2001. *Lab Manual and Workbook for Physical Anthropology*. Fourth Edition.)

ZOO INFORMATION & DIRECTIONS

The San Francisco Zoo is open from 10:00 a.m. to 4:00 p.m. everyday. Last admission entrance is 3:00 p.m. Admission prices are as follows:

Adults (15-64)	\$17.00
Children 4-14	\$11.00
Children 3 & under	Free

- All-day parking is \$8.00 Mon- Fri. \$10 on weekends and holidays but free parking is available along Sloat Blvd.
- It is recommended that you pack a lunch (which you can eat inside the zoo), although there are concession stands (which are not very good and fairly expensive).
- Wear layered, comfortable clothing. Be sure to bring a sweater or jacket and wear comfortable walking shoes.
- Make sure to BRING A WATCH so you can complete the timed observation exercises.

Getting there:

- Take 280 North to the Westlake District exit in Daly City. Continue going north (Junipero Serra Boulevard) to John Daly Boulevard.
- Turn left at John Daly Boulevard and continue to Skyline Blvd (Highway 35).
- Turn right onto Skyline Blvd. (Highway 35)
- At the Skyline/Great Highway junction, turn left onto the Great Highway
- Get into the right lane and take the right turn into the new Zoo entrance on the Great Highway

Miscellaneous

If you are planning to bring children along to the zoo, it is strongly recommended that you have another adult accompany you so that you are free to complete the lab worksheets. You will be collecting data and doing extended observations. All worksheets/exercises are to be completed thoroughly and completely. You should plan to spend at least TWO to THREE HOURS at the zoo (this does not include drive time!).

INTRODUCTION

This exercise involves observing behavior and morphology of zoo primates. Before visiting the zoo, review typical locomotive behavior and other physical characteristics of the major groups of primates discussed in the lab class, the coloring book, and the “Life in the Trees” video handout. You should be aware that primate morphology (shape/size of anatomical features) can be slightly different in captive and wild animals, though these differences are usually minimal.

Behavior patterns, on the other hand, can be extremely different between zoo and wild primates. The locomotive behavior of zoo primates, for instance, depends largely on what they have available in their cages and enclosures. An arboreal primate will not be able to exhibit its full range of arboreal agility, for example, if its cage consists only of bars and a concrete floor. Also note that many of the behaviors listed below will be season specific and will be determined to some extent by the number, ages, and sexes of individuals present within each enclosure.

BEHAVIOR CATEGORIES

There are basically two methods for observing primates: either specific behavioral categories are chosen, or all of the behavior of a specific (focal) animal or group of animals is observed and behavior recorded. If, for example, a female in the zoo has recently given birth, you may wish to concentrate on mother-infant interactions. If, on the other hand, a group of primates includes many juveniles, you may decide to focus on play behavior.

In order to fully understand the behavior sequences observed, one must usually be familiar with the individual and group histories. For example, an adult female may interact with an adult female to which she is closely related quite differently than to one to which she is not related. Because of this, it would probably be most productive to choose a focal animal or focal group of animals and record whatever behavior they exhibit over a given time period. Below is a short list of behavior categories to choose from:

1. Mother-infant interactions
2. Play behavior
3. Sexual behavior – mounting behavior
4. Adult male-adult female interactions (including asexual)
5. Adult male-juvenile interactions
6. Adult male-adult male interactions
7. Adult female-adult female interactions
8. Adult female-juvenile interactions
9. Aggressive behavior (combative)
10. Dominance behavior (facial gestures, posture, etc.)

CLASSIFICATION, MORPHOLOGY AND LOCOMOTION

Complete the following information based upon each of the species of primates the zoo maintains.

1. PROSIMIANS: List by genus, species, and common name, the prosimians observed at the Zoo.

Genus	species	Common name
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2. AMERICAN MONKEYS: List by genus, species and common name, the American monkeys kept by the Zoo.

Genus	species	Common name
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3. AFRICAN MONKEYS: List by genus, species and common name, the African monkeys at the Zoo.

Genus	species	Common name
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4. **ASIAN MONKEYS:** List by genus, species and common name, the Asian monkeys observed.

Genus	species	Common name
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5. **APES:** Please list by genus, species, common name and geographic distribution, ALL of the apes kept by the zoo.

Genus	species	Common name	Geographic distribution
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6. List by common name all primate species at the zoo that have PREHENSILE TAILS.

7. Although most primates are diurnal (day active), several species are nocturnal (night active). List by Genus, species, common name and geographical distribution at least TWO NOCTURNAL primate species one can see at the zoo.

8. An omnivorous dietary pattern is one of the evolutionary trends of the Order Primates. However, not all species are omnivorous, some are dietary specialists. Name by Genus, species, common name and geographical area of origin, TWO representatives of the “LEAF-EATING” monkey group.

9. Primates are characterized by a diversity of locomotor habits unmatched among the Mammals. These patterns can be crudely divided into several major categories. Based upon classroom lectures, your observations at the zoo, and your textbook, please name at least one primate species at the zoo for each of the following types of locomotor patterns:

- Terrestrial quadrupedalism _____
- Knuckle-walking quadrupedalism _____
- Brachiation _____
- Arboreal quadrupedalism _____

10. Which apes at the zoo have INFLATABLE THROAT SACS?

11. Of all the primates one can observe at the zoo, which ones are the MOST NUMEROUS?

EXTENDED OBSERVATION EXERCISE

Closely observe a group of primates for **at least 30 uninterrupted minutes**. You should record all behaviors observed during the exercise on the following page, noting the time frequently in your notes. It is advisable to abbreviate when and where possible to reduce time spent writing during the observation period.

Select one primate species to observe. You may focus on ONE specific animal or a GROUP of animals. Briefly review the BEHAVIOR CATEGORIES to assist in guiding your observations.

Based on your “field notes,” write a one to two page essay describing what you observed. You will submit the typed essay, along with your field notes, this lab report and the following Questions for Discussion by the end of the semester.

Field Notes:

TO BE COMPLETED AT HOME

Questions for Discussion: After completing your field observations, answer the following questions.

1. What was your impression of the primate habitats at the zoo? Did they seem representative of the animal's natural habitat? Do you have any ideas about how the environments may be improved based on what you know about primate habitats and social structure/behavior?

2. What was your impression of how other zoo visitors reacted to the non-human primate exhibits? How did other visitors interact with the animals?

3. Do you think the animals would have been acting differently if they had been in the wild? What types of behaviors/interactions do you think may have been affected by being captive?

4. What was your overall impression of this lab exercise? Was it challenging? Interesting? Fun? Boring? Depressing? Why? Has it changed how you view non-human primates?
