Llano Estacado Master Naturalist Curriculum Guide

Unit 16: Mammalogy

“Our task must be to free answers by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty.” — Albert Einstein

Unit Goals: After completing this unit, volunteers should be able to:

* become familiar with the common, native Texas mammals in your ecoregion,
* demonstrate knowledge about the general characteristics of the 3 major (subclasses) of mammals,
* discuss basic principles of mammal behavior, physiology, and ecology and relate these principles to environmental adaptations,
* demonstrate familiarity with the 10 orders of mammals found in the state,
* discuss the diversity and distribution of mammals in Texas and an understanding of the role of mammals on Texas ecosystems,
* demonstrate knowledge of estimating/measuring mammal populations,
* demonstrate knowledge of methods for trapping, marking, monitoring, and observing mammal populations,
* understand threats to mammals in Texas.

**Major Characteristics of Class Mammalia**

1. Name three of the major characteristics of the class Mammalia. (p 518)

1. Name two characteristics of each of the three major subclasses of mammals. Name an example of each. (p. 519)

A. Monotrememes (Prototheria)



ex.:

B. Marsupials (Metatheria)

2. .

ex.

C. Placental (Eutheria)



ex.

1. For each group based on the degree of development at birth, name one advantage and one characteristic. (p 521)
2. Altricial young (helpless):
3. Precocial young (relatively well developed):

**Mammals in Texas**

1. Name 5 of the 10 orders of mammals in Texas. List characteristics of two orders with a sample mammal. (p. 524-526)

A. Order: Example:



B. Order: Example:



C. Order:

D. Order:

E. Order:

**Distribution of Mammals in Texas**

1. What three factors contribute to large diversity of mammals in Texas? (p. 527)

1. What determines the distribution of mammals in Texas? (p.527)
2. Name 10 mammals you might see in the Plains Country region. (pgs. 529-532)

**Estimating the Number of Mammals in Wild Populations**

1. What is a population estimate? (p. 533)
2. Name three methods for estimating populations. (p.533)

**Capturing and Marking Mammals (**p 534-535)

1. Name two methods of trapping mammals

a.

b.

1. Name two methods of marking mammals

a.

b.

**Conservation Concerns** (p. 538)

1. Name two threats to mammals in Texas?

a.

b.

**Additional References**

Schmidly, D. J. 2004. *The Mammals of Texas*. 6th ed. Austin: University of Texas Press.