

**Desert Biology - Field Biology**  
**Summer 2007**  
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**Text Books:**

- ✧ Bland, R.G. , M.J. Cuthbert, M.W. Cutkomp, W.G. Jaques, J Lemieux, F.J. Stoner, J. Barrick and E.T. Cawley. 1978. *How to Know the Insects* (Pictured Key Nature Series). McGraw-Hill.
- ✧ Burt, W.H., R.P. Grossenheider and R.T. Peterson. *A Field Guide to Mammals: North America north of Mexico* (Peterson Field Guides). 1998. Houghton Mifflin Co.
- ✧ Epple, A. *Plants of Arizona*. 1997. Falcon Publishing.
- \* Robbins, C.S., B. Bruun and H. S. Zim. 2001. *Birds of North America (Golden Guide)*. St. Martin's Press
- ✧ Stebbins, R.C. *A Field Guide to Western Reptiles and Amphibians: Field Marks of All Species in Western North America, Including Baja California* (Peterson Field Guide Series). 1998. Houghton Mifflin Co.
- \* Required for each student
- ✧ One copy required per group

**Optional:**

- Enquist, M. *Wildflowers of the Texas Hill Country*. 1989. Lone Star Botanical.
- Powell, A.M. *Trees & Shrubs of the Trans-Pecos and Adjacent Areas*. 1998. University of Texas Press.

**Tentative Grading Procedures:** There will be three major parts to your grade for these classes:

1. A series of 8-13 quizzes given approximately every second or third day - Value: 50%.
2. Reports and research data - Value: 25%.
3. Collections – plants, vertebrate animals, and insects - Value: 25%.

The three components of your grade will be added together to establish your final grade. The grading system will be a 10 point system as follows: A = 90 - 100%, B = 80 - 89%, C = 70 - 79%, D = 60 - 69%, F < 60%.

The quizzes will be comprehensive but most of the material covered will be from the previous 2-3 days work. There will be 10-25 questions per quiz. Questions will be short answer or practical identifications of plants and/or animals.

There will be six to ten research projects and reports. They will be written up and turned in for grading in the field. Reports will include raw data and calculated data, possibly a table and/or figure and a brief abstract (one page or less) explaining the project. Raw data should be included, but not recopied. Each report will be worth ~3-4% for a total of 25%. Graduate students may have additional experiments and observations to complete.

**Collections:**

For the plant collection, 120 plants will be collected, pressed and identified. Sixty of the plants should be woody and 60 herbaceous. Pressed and dried plant parts should be attached to a 3 x 5 card. On the back of the card the following information should be included:

Herbarium of	No.
Technical Name	
Common Name	
Family	
Locality	
Habitat	
Elevation	
Date	
Collected by	

One point will be given for each correctly identified plant (¼ Genus species, ¼ common name, ¼ Family, and ¼ for proper technique). For an "A" grade on your collection 108 (= 90%) correctly identified plants will have to be turned in with excellent preparation. For a "B" grade 96 (= 80%) are required, for a "C" grade 84 (= 70%) are required, for a "D" grade 72 (=60%) are required.

For the vertebrate collection **20** reptiles, mammals, and amphibians will be captured. Each animal must be captured live and released within one hour in the **EXACT** same location captured. Each animal must be correctly identified and released unharmed. When identified a 3 x 5 card should be prepared with the following information:

- Common name
- Species name
- Date of capture
- Location of capture
- Habitat of capture
- Collector – name (group members)

If an animal is killed or injured a warning will be given. If a second animal is killed or injured **5 animal credits will be subtracted from your grade**. Care should be taken with the animals to protect their health and as well as your health. To receive 100% for your collection, you must capture a total of 20 animals.

For the insect collection, **18** points will be required. One point is given for each different order correctly identified. A list of orders presented is required when the collection is turned in, or points will be deducted. The insect must be correctly identified to order to receive any credit. An additional ½ point may be deducted if the technique and presentation of the sample is incorrect (based on instruction and the condition of the sample).

On one side of the label include the following:

- The locality (town, park, or county, and state)
- Habitat
- Collectors Name

Davis Mts. State Park, TX  
Streambed  
Jane Doe (Group #)

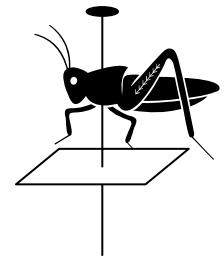
(Top)

On the other side of the label include:

- Order
- Date

Coleoptera  
06/01/07

(Bottom)



**Extra Credit:** For each additional vertebrate collected or insect identified to order you will receive 0.50 pts on your **final** average.