**Lab Unit 6 – Phylogeny: Classification and Assessing Relatedness**

**PRE-LAB Assignment: A Scavenger Hunt**

**Instructions: Refer to the Pre-Lab for Lab Unit 6.** Read the background material for this unit. You will be doing a scavenger hunt in which you will find and take pictures of organisms representing each of the Plant and Vertebrate groups listed in the lab manual. Use the character descriptions, pages 95-97, 105-108, and links on the lab website under Pre-Lab to help you identify important characters to place the organisms you find into the correct group. Make sure you activate the GEO tags on your phone so that it tracks the date/location for the pictures you take. (As an additional picture of a given organism, you can also take a selfie with your image if you are able to do so for that organism.) You will need to bring your work to the In-Lab meeting.

NOTE: You may use pictures you took while on vacation, hiking, etc. As long as they are your images, they will be accepted for this assignment. You may also go to parks, gardens, pet shops, zoos, grocery stores etc., to find representatives of the groups. There are many options, so please do not take images off the internet, as they will not count. All pictures must be JPG, JPEG or PDF.

**Activity #1: *Determining Relatedness Among Major Plant Groups***

Identify the name of each organism as best you can (scientific and common name) and determine the group to which it belongs. If you are up for the challenge, try to classify it into each taxonomic group (Domain to Species).

1. Below is a template for inserting your plant pictures (insert as many as you find for each group).

2. Also add at least 1 or 2 Key Identifying Characters that this group exhibits that is unique to this group and not shared by all the other groups. *(Hint look to Table 6-2 in your lab manual or on the lab website)*

**Charophytes -** [picture provided below]: An image has been provided, since you may not find a representative of this group easily. If you do have your own picture, you may add it below.

Key Identifying Character *– Lacks alternation of generation (provided example answer)*

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**Bryophytes -** [insert picture below]:

Key Identifying Character –

**Pteridophytes -** [insert picture below]:

Key Identifying Character -

**Gymnosperms -** [insert picture below]:

Key Identifying Character –

**Angiosperms -** [insert picture below]:

Key Identifying Character –

**Activity #2: *Determining Relatedness Among Vertebrate Classes***

Identify the name of each organism as best you can (scientific and common name) and determine the group to which it belongs. If you are up for the challenge, try to classify it into each taxonomic group (Domain to Species).

3. Below is a template for inserting your Vertebrate pictures (insert as many as you find for each group).

4. Also add at least 1-2 Key Identifying Characters that this group exhibits that is unique to that group and not shared by all the other groups. *(Hint look to Table 6-3 in your lab manual or on the lab website)*

**Amphibians -** [insert picture below]:

Key Identifying Character –

**Mammals -** [insert picture below]:

Key Identifying Character –

**Crocodilians -** [picture provided below]:   
NOTE: An image has been provided, as you may not find a representative of this group easily. If you do have your own picture (from an outing, vacation, etc.), you may add it below.

Key Identifying Character – Sprawling gait and 4 chambered heart (provided example answer)

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**Turtles -** [insert picture below]:

Key Identifying Character –

**Lizards & Snakes -** [insert picture below]:   
NOTE: Remember to be careful with snakes, as some may be venomous. Be safe.

Key Identifying Character –

**Birds -** [insert picture below]:

Key Identifying Character -