**Laboratory Unit 4a – Ecological Methods: Field Sampling Techniques**

**Leaf Herbivory and Fungal Occurrence on Tree Species**

**Fall/Summer Data Collection Handout**

**Methods:**

***Step 1:* Record your observations below:**

* Description of sampling location(s). If using different locations, indicate and describe for each location (add GPS location/geotag, if possible):
  + Insert pictures:
* Description of observations around each of the **3 trees sampled**:
  + Insert pictures:
* Tree(s) Identification (as specific as possible – genus and species):
* Other observations:
  + Insert pictures:

***Steps 2 & 3*: Record leaf surface area in the tables at the end of this document** (Table 4.1-1)

* Insert pictures of types of leaf herbivory you observe on each of your trees
* Insert pictures of types of fungal infection you observe on each of your trees – keeping track of what you see on each tree:

Table 4.1-1. Calculations of approximate leaf surface area (SA)

|  |  |  |  |
| --- | --- | --- | --- |
| Tree #1 species: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| Leaf # | Overall Leaf  SA | Herbivory Damage Leaf SA | Percent  Leaf Damage |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total SA of leaves/category |  |  |  |
| Ave. Surf. Area/10 leaves |  |  |  |

Additional Notes:

|  |  |  |  |
| --- | --- | --- | --- |
| Tree #2 species: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| Leaf # | Overall Leaf  SA | Herbivory Damage Leaf SA | Percent  Leaf Damage |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total SA of leaves/category |  |  |  |
| Ave. Surf. Area/10 leaves |  |  |  |

Additional Notes:

|  |  |  |  |
| --- | --- | --- | --- |
| Tree #3 species: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| Leaf # | Overall Leaf  SA | Herbivory Damage Leaf SA | Percent  Leaf Damage |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total SA of leaves/category |  |  |  |
| Ave. Surf. Area/10 leaves |  |  |  |

Additional Notes: