**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)

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

Additional Notes:

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

Additional Notes:

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

Additional Notes: