Biology 323 Plant Collection Project (2011)

Objectives: To familiarize students with plants in their natural habitats and to provide practical experience in collecting, pressing, and identifying 'living' plants.

Project: worth 20% of final grade

1. Students enrolling in Biology 323.3 are required to submit a collection of exactly 40 different species of vascular plants collected throughout the summer. It is recommended that you collect at least 60 species or more to ensure sufficient specimens for submission. All plants must be collected by the student.
2. Collection must be of native or naturalized plants (naturally occurring as part of the flora, excluding cultivars, but including weeds). They must be vascular plants (no mosses, lichens, algae, or fungi).
3. The collection must include:

   Dicotelydons (25): 25 species are required and must include the following families:

   Asteraceae (sunflower family): minimum of 5 species

   Fabaceae (legume family): minimum of 3 species

   Brassicaceae (mustard family): minimum of 2 species

   Remaining **15 dicot species** should represent familial diversity within the dicots.

   Monocotyledons (15): 15 species are required and must include:

   Poaceae (grass family): minimum of 5 species

   Remaining **10 monocot species** should represent familial diversity within the monocots.
4. Plants and detailed collection information must be properly collected according to instructions given by the curatorial staff of the W. P. Fraser Herbarium
5. Plants must be appropriately pressed and dried using a plant press. The presses may be retained throughout the summer but must be returned before the end of the fall term.
6. Plants are to be identified by the student during the fall term and submitted to the curatorial technician near the end of the term on a date specified by the instructor.
7. Each plant should be submitted in a loose fashion within a folded newsprint sheet.
8. Each specimen must be accompanied by a label which generally follows the same guidelines as the example provided and should include the following information.
   a. ALL specimen labels must be computer generated; no hand-written labels will be accepted. Typically, you should be able to fit six labels per page (3 per column).
   b. Names and taxonomic authorities should follow ITIS: **http://www.itis.gov**

9. You must submit an electronic copy of your labels via email to sask.herbarium@usask.ca in addition to the labels printed with your collection.

THE W. P. FRASER HERBARIUM **UNIVERSITY OF SASKATCHEWAN** FLORA OF SASKATCHEWAN Family *Genus species* Taxonomic authority. General location, SK. Habitat description and abundance of plant. Elevation, if known. Size of tree or plant, colour of flower, etc. Specific location (GPS, UTM, or Land Location) Date: when you collected: Collection #: the number you assigned Collected and Identified by: Your name	**THE W. P. FRASER HERBARIUM (SASK)** **UNIVERSITY OF SASKATCHEWAN** FLORA OF SASKATCHEWAN Tamaricaceae *Tamarix ramosissima* Ledeb. Findlater, SK. In a gravel pit growing adjacent to a small pond area with standing water in a weedy, disturbed part of the gravel pit. 5 feet in height, small pink flowers. Elevation 556.5 ft. UTM 469013 E 5629218 N Zone 13. Date: July 3, 2010 Collection #: 014 Collected and Identified by: Sherri Korpess

10. The plant collection must be accompanied by a summary sheet that lists the identified species and their collection numbers grouped together under their respective families. The family and species names must be in alphabetical order.
11. Addition information about collecting and preserving plant specimens can be found in Appendix 2 (p. 431-438) of Judd et al.

Evaluation: The collection will be marked based on the following criteria:

1. Diversity (the number of plant families, genera and species represented) – 25%
2. Number of correctly identified specimens – 25%
3. Quality of collection and pressing techniques (whole plant or representative portions collected; roots collected and cleaned; flowering or fruiting material collected; specimen laid our neatly; even pressure on all parts of the plant) – 25%
4. Quality of labels/summarysheet (neatness, spelling, authorities, detailed locality and habitat, detailed notes re: flower colour, abundance, height, etc.) – 25%

Note: DO NOT collect in Provincial or National Parks or protected areas without a collecting permit!