

Purpose: We will use this class meeting to prepare for our first field laboratory.

Materials: Murrell text, *Michigan Trees*, your class/study notebook

New Materials to be Provided: Plant collecting permit(s), local maps, and a water-proof field journal (sold at ~30% of cost = \$5.00), hand lens (loaned)

Assignment: Visit (click) [Example Field Journal Entry](#) and then read and reflect on the following suggestions as you consider how you will organize your own personal field journal and data entries.

Meeting Place: ENS 106

Field Journal Guidelines:

Although each individual person's style will differ, there are some essential features that will be specified to guide you toward an effective field journal. Note the following features of the journal page example (required features are starred (*)):

1. *Page number and date located somewhere in a prominent position
2. *One plant species entry per page; therefore, page number (see 1.) can serve as plant species entry number" and also recorded data for your PC-W and PC-S specimen collections.
3. *Scientific name (Genus name is capitalized, the species epithet is not.) and common name
4. *Family taxonomic name and common name.
5. *Location - as would be required on herbarium label; township (twp.) and highway/street name and distance/direction to nearest town/city
6. *Plant Community – determine nature of biotic community and include brief description of habitat; if more than one species is identified and recorded in the same Location and Plant Community, then they may be described once, and then that page number is referenced in subsequent species entries.
7. A sketch of each species or distinguishing parts of plant is an asset for later study.
8. Notes – add additional information such as distribution (e.g. clumped, scattered), or page number of the field guide or larger floras you may have used to I.D. the plant
9. General suggestions for field journal lay-out:
 - a. Leave the first 5 leaves of the journal blank for eventual "table of contents," etc.
 - b. Some prefer to take field notes and "translate" them later into your species entry pages. You may use the final 15 leaves of the field journal for field notes. Save middle 55+ leaves for your 100+ species entries which allows ≤ 10 pages within to describe field collection sites (see 6.)
 - c. Leave space on each of your species entry pages for additional notes made later in the season.
10. On page 5.2, you will find a listing of suggestions on the general philosophy of "taking notes in the field" and a challenge to give priority to developing the skills of observation and thoroughness.

HOW TO TAKE NOTES IN THE FIELD*

1. Take all notes on the spot. Do not trust your memory. It will fail you with alarming frequency, and this can only result in incomplete and inaccurate notes, which are of no value in a scientific study.
2. Make complete notes. You may have much that seems at first unimportant, but sort your notes later when you can better judge to eliminate unnecessary material.
3. After you have completed the days' observations, stop to ask yourself if there is anything else you ought to check. Imagine yourself writing up results and look for items which are missing.
4. A picture, even a rough sketch, is worth a thousand words. Even without being artistic, a field sketch may help you to recall things you would not remember without such a sketch. It will also save time in many cases. Digital cameras are an excellent aid to data collection provided you make field notes that help you identify location and general direction the camera was aimed in each photo.
5. Cultivate the practice of observation. Learn to see things not ordinarily noticed. Write down what you see, avoiding interpretations based on inadequate information. Remaining absolutely still for a few minutes will introduce your senses and experience to the world of living creatures that few people encounter.
6. Be certain that observations are accurate. Identify all species carefully or, if necessary, collect specimens or samples for later identification when more time and adequate facilities are available. CAUTION: Be sure to have permission to enter property and to collect specimens.
7. Make observations as quantitative as possible. Data on numbers of individuals, numbers of species, age of specimens, and ratios of numbers are far more useful (and defensible) for constructing and testing hypotheses than mere description.

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- These suggestions may be applied to a variety of field biology-related research; some apply more directly to field botany and plant taxonomy than others. Their usefulness is especially in their challenge toward careful observation, thoughtful inquiry, and careful documentation.

PLANT COMMUNITY TYPE:			
Codes for Plant Community and Physical Environment		BIO 3520 Plant Taxonomy	
<p>U - Urban; human-dominated</p> <p>U1 – Open turf grass U2 – Parkland turf grass U3 – Suburban residential U4 – Urban; mostly paved U5 – Transportation Corridor U6 – Dooryard, Barnyard (Compacted; human/animal)</p>	<p>L - Openland; shrubland</p> <p>L1 – Cultivated Land L2 – Hay Field L3 – Pasture L4 – Planted Prairie L5 – Remnant Community L6 – Abandoned Field L7 – Shrub, Small Trees</p>	<p>F - Forest (Upland)</p> <p>F1 – Successional Hardwoods¹ F2 – Degraded forest F3 – Young Understory/Overstory F4 – Tree Plantation F5 – Mature Hardwood F6 – Forest Preserve; Natural Area ¹ From openland, even age, low H'</p>	<p>W - Wetland, Water</p> <p>W1 – Wet Meadow W2 – Marsh (obligate species) W3 – Swamp (forested wetland) W4 – Mud flat; or bar W5 – Riparian wetland W7 – Lake shoreline; dunes W8 – Littoral zone macrophytes</p>
PHYSICAL ENVIRONMENT		PLANT POPULATION & DISTRIBUTION	
<p>T - Topography & Elevation</p> <p>T1 – Lowland, flat land T2 – Gently rolling land T3 – Sloping land; hilly T4 – Steep slope; ravine; hollow T5 – Talus slope or excavation T6 – Alpine (> 4,000 feet)</p> <hr/> <p>A - Aspect (Exposure)</p> <p>General compass direction toward which the slope faces – e.g. A-SW indicates a “southwest aspect”</p>	<p>S - Substrate</p> <p>S1 – Epiphytic S2 – Soilless; rock outcrop, cliff face, boulder S3 – Shallow soil among rocks S4 – Compacted soil S5 – Sandy, gravelly, disturbed S6 – Acid soil; conifers, heaths S7 – Deep, rich, forest soil S8 – Organic – peat; nurse log</p>	<p>P - Population size</p> <p>P1 – Solitary plant P2 – Clump P3 – Clone but separated stems P4 – Fewer than 5 distinct plants P5 – Five (5) or more distinct plts.</p> <hr/> <p>D - Distribution</p> <p>D1 – Random D2 – Clumped D3 – Uniform, regular</p>	<p>G - Growth Form</p> <p>G1 – Herbaceous G2 – Shrub or Vine G3 – Tree</p> <hr/> <p>R - Reference to Field Guide</p> <p>List page used in your species identification (for convenience)</p>