

ESCI 197C INTRODUCTION TO FIELD RESEARCH

John McLaughlin

Field Journal

By keeping a field journal, you will participate in an essential practice of field science with a long tradition, perhaps dating to the origin of modern humans (Greene 2011). Journal entries provide raw material to inform scientific thinking and some have been used to reconstruct historic conditions centuries later.

A field journal will be one of your most important tools in this course. It should be where you record all of your observations, hypotheses about field site patterns, and other ideas related to your field experiences. Your journal should contain entries from each field session in the course, supplemented by observations you make outside of the course. (You might want to carry your journal with you at all times this quarter. Perhaps you will enjoy field science so much that this will become a life-long habit.) Your journal will provide the basic information you will use in other assignments for the course, including the field deduction report and your research project.

I recommend recording your journal entries in a bound notebook that is conveniently portable, but large enough to accommodate drawings and sketches. The cover should be durable. If the journal is not waterproof, you should carry it in a waterproof container. Label your journal with your name and contact information, so it can be returned to you if you misplace it.

Several journal formats have been developed by natural historians and field scientists. You should feel free to use a format you find effective, but each journal entry should include the items listed below. Additional recommendations for journal keeping are provided by Eleanor Stirling and Janice Alexander; see references below. If pages in your journal notebook are not numbered, please write your own numbers in the same location on each page.

I will encourage diligent journal keeping by your journal entries weekly. Please photograph or scan new journal entries each week and submit those images to Canvas. Journal entries are due each class period. I will use the following rubric to evaluate your journal.

Field Journal Rubric

1. Relevant: observations and inferences pertain to natural history of course field sites or suitable alternatives. Entries seek answers to questions regarding patterns or processes in nature.
2. Complete: each entry contains the following information.
 - a) Date
 - b) Time
 - c) Location (give geographic coordinates or use unambiguous landmarks)
 - d) Weather conditions (temperature, wind direction and velocity, cloud cover [% and kind], approximate humidity)
 - e) Habitat(s)
 - f) Vegetation type
 - g) Vegetation status (flowering, fruiting, senescent, percent leaves dropped, etc.)
 - h) Description of species or natural history patterns observed
3. Clear: Writing describes observations precisely and vividly. Drawings are labeled and related to written entries.
4. Descriptions are detailed and unambiguous: A person returning to the site could find the patterns described in your journal using your journal alone.
5. Accurate: Species (or rocks) are identified correctly, using appropriate names (botanical, mycological, zoological, geological or their common analogues) that are found in relevant field guides. Alternative names are acceptable if explained adequately. Identifying characteristics are described clearly and accurately. Patterns or processes observed are described in accurate detail.
6. Neat: writing is legible (your observations might be used by someone in the distant future).
7. Careful: Descriptions reflect careful and/or patient observation.
8. Insightful: Ideas about the origin or maintenance of patterns observed reflect insightful consideration.

References

- Greene H. W. 2011. Field work as art and science. *Science* 333: 1704-1705. doi: 10.1126/science.1210553
- American Museum of Natural History. (year unknown) Keeping a Field Journal 1, by Eleanor Sterling. AMNH, New York, NY. [online] <https://www.amnh.org/learn-teach/curriculum-collections/biodiversity-counts/what-is-biodiversity/keeping-a-field-journal-1-eleanor-sterling>
- Alexander J. (year unknown) How to keep a field journal. University of California, Division of Agriculture and Natural Resources, UC Cooperative Extension, Marin County. [online] <https://my.ucanr.edu/sites/uccemarin/files/220523.pdf>