

## The Importance of Herbaria

Herbaria can be used to:

1. Discover or confirm the identity of a plant or determine that it is new to science (taxonomy);
2. Document the concepts of the specialists who have studied the specimens in the past (taxonomy);
3. Provide locality data for planning field trips (taxonomy, systematics, teaching);
4. Provide data for floristic studies (taxonomy);
5. Serve as a repository of new collections (taxonomy and systematics);
6. Provide data for revisions and monographs (systematics);
7. Verify Latin plant names (nomenclature);
8. Serve as a secure repository for “type” specimens (taxonomy);
9. Provide infrastructure for obtaining loans, etc., of research material (taxonomy, systematics);
10. Facilitate and promote the exchange of new material among institutions (taxonomy);
11. Allow for the documentation of flowering and fruiting times and juvenile forms of plants (taxonomy, systematics, ecology, phenology);
12. Provide the basis for an illustration of a plant (taxonomy, general publishing);
13. Provide pollen for taxonomic, systematic, and pollination studies as well as allergy studies (taxonomy, systematics, pollination ecology, insect ecology, medical studies);
14. Provide samples for the identification of plants eaten by animals (animal ecology);
15. Document which plants grew where through time (invasive species, climate change, habitat destruction, etc.);
16. Document what plants grew with what other plants (ecology);
17. Document the morphology and anatomy of individuals of a particular species in different locations (environmental variation);
18. Provide material for microscopic observations (anatomy, morphology);
19. Serve as a repository for voucher specimens (ecology, environmental impact studies, etc.);
20. Provide material for DNA analysis (systematics, evolution, genetics);
21. Provide material for chemical analysis (pollution documentation; bio-prospecting, for coralline algae - determining past ocean temperatures and chemical concentration);
22. Provide material for teaching (botany, taxonomy, field botany, plant communities);
23. Provide information for studies of expeditions and explorers (history of science);
24. Provide the label data necessary for accurate data-basing of specimens (biodiversity and conservation biology, biogeography);
25. Serve as a reference library for the identification of parts of plants found in archeology digs (paleoethnobotany);
26. Provide space and context for accompanying library and other bibliographic resources (library sciences, general research, taxonomy, etc.);
27. Serve as an archive for related material (field notebooks, letters, reprints, etc.);
28. Provide information on common names and local uses of plants (ethnobotany, economic botany);
29. Provide samples for the identification of plants that may be significant to criminal investigations (forensics);

30. Serve as a means of locating rare or possibly extinct species via recollecting areas listed on label data (conservation biology, environmental impact statements, endangered species, etc.);
31. Serve as an educational tool for the public (garden clubs, school groups, etc.); and
32. Provide a focal point for botanical interactions of all types (lectures, club meetings, etc.).