

INTRODUCTION TO MU'S HERBARIUM

A herbarium is an archived collection of carefully pressed, dried, and preserved plants. Some herbaria also include algae and fungi. The identified and documented specimen are used for current research, identification and comparison of collected plant specimen, education, historical projects, and even as the basis for various sorts of botanical artwork.

As in the books of a library, the specimen and labels provide all the information. In fact, the label and specimen are equally important. The specimen provides information about the species' morphology while the label offers taxonomic and locality information. The pressed specimen and label are mounted on archival paper or stored in packets. Herbarium specimens will last indefinitely if properly prepared, cared for, and protected from water, humidity, and a variety of pests, such as insects and fungi.

Herbaria document the world's flora and provide a constant and permanent record of botanical diversity. This role is increasingly important as the rate of habitat destruction increases and climate change precipitates changes in species' ranges and aspects of their ecology.

Herbaria and their sponsoring institutions become known regionally as individuals, other institutions, and groups collaborate on interconnected projects. After all, institutions have clear boundaries, but the plant communities upon which herbaria collections are based do not. This academic year (2016-2017) the Biology and Physical Sciences Department has started a herbarium. Through departmental and university funds, we purchased a herbarium cabinet and materials for archiving plants. As a start-up project this year, we have begun mounting and archiving a collection of over five hundred previously dried and pressed plants, from delicate pink seaweed to bushy loblolly pine specimen. These plants were collected and identified over fifteen years ago to start a herbarium at Marymount. Unfortunately the project had to be abandoned. However, the plants were stored and carefully kept dry and intact - waiting for the project to continue. The most time consuming aspect of starting the herbarium is mounting and documenting these plants.

WHAT OTHER THINGS CAN YOU DO WITH A HERBARIUM?

Beyond their customary value to taxonomy, herbarium collections have become crucial for a wide array of studies including such things as reconstruction of plant phylogeny, the spread and habitat preferences of invasive species, population trends of rare plants, identifying priority sites for conservation, pollination ecology, forensic and toxicology studies, ethnobotanical studies, and DNA and genetic studies to name a few. Universities also use herbaria for material for teaching, research projects, run public workshops and awareness programs, internships and job opportunities, specimen for museum and educational exhibits.

HERBARIA TRIVIA

Many Herbaria were established throughout Europe in the 1600s, during the age of exploration when botanical gardens could no longer keep living collections of all the known species and thus preserving and storing specimens became common practice.

The largest herbarium in the world is at the National Natural History Museum in Paris, France, with over 9.5 million specimens. The largest herbarium in the United States is the New York Botanic Gardens Herbarium, established 1891, with over 7 million specimens.

Many Herbaria in the USA were established throughout the 1800s. The USA has 405 registered herbaria with a total of 59 million specimens or 22% of the world's herbarium collections.

Floor-view picture of a herbarium cabinet from the bottom up.



REFERENCES

The above information was from the following websites which are good sources of information about herbaria.

<https://ag.purdue.edu/btny/Herbaria/Pages/What-is-an-Herbarium-and-what-does-it-do.aspx>

Accessed 9/12/17

<https://www.brown.edu/research/projects/herbarium/about/what-herbarium> Accessed 9/12/2017

<http://herbarium.bio.fsu.edu/> Accessed 9/12/2017