

## Using the Center for Plant Diversity Facilities (1026 Sciences Laboratory Bldg.)

**United States Postal Service Mailing Address:** Ellen Dean, UC Davis Center for Plant Diversity, Plant Sciences Mail Stop 7, One Shields Ave., Davis, CA 95616. **(If you use a private mail carrier, use the 1026 Sciences Laboratory Building address).**

**Plants sent to us for identification** should be flattened in folded newspaper or taped to paper and securely fastened between two cardboards and sent in a padded envelope or box. Plants placed in plastic bags often mold. Please include date and location of collection (including elevation) and your contact information.

**Normal hours:** Monday – Friday 9 a.m.- 4 p.m. (no assistance available from 12-1). We are often here by 8:30 a.m. and often open past 4 p.m. We are very accommodating and special arrangements can be made for evening and weekend use, once a user is oriented as to specimen filing, how to treat our specimens, microscope use, and our lock-up routine. **If you are planning on coming for the first time or need help, contact Ellen Dean (eadean@ucdavis.edu) or Jean Shepard (jvshepard@ucdavis.edu), 530-752-1091.** When you come, please sign our visitors' book. It helps us justify our existence.

**Rooms in the facility:** People enter the Center through the door to room 1026, which is our mounting room (where specimens are glued onto paper and accessioned). Next to that is our computer room, which may be locked. The herbarium can be entered through 1026 (the J.M. Tucker Herbarium sign is above the door). The herbarium is kept below 60 degrees F to prevent insect infestation. It is not all that hospitable. There is a warmer room with microscopes called the McCaskill Room, which can be accessed through the computer room or through the herbarium. Next to room 1026 on the north side is our plant pressing, shipping, freezer, and equipment room (room 1024).

**How to treat our specimens:** Herbarium specimens are relatively tough, but their parts can be broken off or cracked. Please do not turn them over like a book page, stand them up on end, or rub them against each other. If you need a lot of specimens at once, get a cart and place the folders on the cart and take them to where you want to work. Single sheets should be carried on a cardboard.

Within a species folder, the specimens are not in any particular order, and so you can lay them out on a flat surface to examine them and sort them without worrying about the order in which you found them in their species folder.

If you need to dissect a flower or other part on a specimen, ask for guidance. Often, it is easiest to look in the pocket first to see if the part you want to examine is already loose. If it isn't in the pocket, you may need to take a small part off the specimen to dissect on a piece of paper or in a dish. Wetting solution is available on the counter to soften the parts. Return any dissected parts to the pocket.

If you want to take a small piece of a specimen for DNA analysis, please ask permission. We allow sampling only if we have several good specimens of a species and the removal of the part will not harm the specimen. Again, pocket material is preferable. We have small envelopes, if you need them for specimen fragments, but you should bring your own if at all possible. If material is removed, the specimen should be annotated as to your study name, your name, your institutional affiliation, the material removed, and the date. Ask for our policy sheet on destructive sampling.

After examining specimens, please sweep up plant debris with the brush and dustpan and leave the area clean for others.

**Dissecting Stereomicroscope use:** Our microscopes are available for your use in examining our specimens. There are several available in the McCaskill Room as well as one in our equipment room (1024).

**Borrowing plant presses and drying plant material:** We have plant presses that can be checked out for several months at a time. If you need a plant press for a year or longer, it is best to purchase your own. We are happy to instruct you in correct plant press use and specimen preparation. We have a plant drier in room 1024.

**Bringing plant material into the herbarium and insect infestation:** Dried plant material can be destroyed by several plant-eating insects, especially the larvae of “herbarium beetles.” Dried plant material that has been sitting around in your lab or office may be contaminated with the eggs or larvae of these beetles. Our method of decontaminating dried plant material is by freezing at -20 degrees C. If something is known to be contaminated, we freeze it for 2 weeks or longer. If our specimens get contaminated within a case, the contents of the entire case must be frozen (1000 or more specimens). For this reason, we try to limit the opportunity for introduction of beetles into our facility.

What all this means is that any dried material entering a room in the facility other than room 1024 needs to be frozen first. The McCaskill Room is only for clean (decontaminated) dried plant material or fresh (but not wet) plant material. Full plant presses should be brought to room 1024, where they can be placed in the plant drier. Once dry, the collections can be taken out of the press in room 1024 and given to Jean for freezing. We will place the decontaminated specimens into a case for your later use. If you bring your already dried collections to us, we can freeze them and put them into a case for your use. Alternatively, we have a microscope and bench set up in room 1024 for unfrozen or messy plant material. You can bring our herbarium specimens into room 1024 on a clean cart, but those specimens cannot be placed on the “dirty” bench in room 1024 (they will pick up insect eggs from the counter and then contaminate the other specimens in the main herbarium).

After examining specimens, please sweep up plant debris with the brush and dustpan and leave the area clean for others.

**Arrangement of specimens in the herbarium:** The specimens are arranged first by Division (lichens, bryophytes, algae, ferns, gymnosperms, angiosperms) and then by family (except for the lichens bryophytes, and algae, which are arranged by genus). Within the angiosperms, they are arranged by family number. A list of families with their family numbers can be found on the end panels of the banks of herbarium cases. Within a family, the specimens are arranged by genus. Within a genus, there is a color-coded geographic sequence – a guide to this system is also located on the end panels. Green folders hold cultivated specimens from anywhere in the world; blue folders are from non-New World areas; red is for specimens from Mexico, Central and South America and the Caribbean; black is North America excluding California; and yellow is California.

Within a genus folder, there may be one or more species. If there are many species, each is in its own species folder arranged alphabetically within the genus folder.

**Use of the compact storage system:** This is a manual movable aisle storage system. Please move just one bank at a time. If you wish to enter an aisle, and there are other people using the system at the same time, it is best to lock the carriage in place. If you can't move a bank of cases, check to see if it is locked. Please make sure that all doors are closed in the open aisles and step stools, carts, etc. are out of the open aisles before moving the carriages. As always, after removing or replacing specimens, please make sure herbarium case doors are closed completely.

**Library:** We have often-used books on the shelves of the McCaskill room, including popular California floras, weed manuals, poisonous plant references, and horticultural books. The other books are located at the southern end of our herbarium. They are arranged in Library of Congress subject order (similar to Shields Library).

**Voucher collections:** Voucher collections are located in the very northern part of the herbarium. This includes various taxonomic group/research vouchers and flora vouchers. Let us know if you need to access those collections.