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Preparing a Press for a Plant Collection Assignment in a Remote Field Botany Course

Many of us include a collections assignment as a part of a variety of botany or environmental monitoring courses. This is a very practical activity that engages the student's creativity while allowing practice in an important professional skill.

As we all moved into an emergency remote-teaching format in response to SARS-CoV-2, I decided to retain the collections assignment as a part of my upper-level Field Botany course at the University of Oregon (BI448/548). In this course format, I thought this was important because it was a way for me to know that the students were looking closely at, and handling, real plants in an otherwise screen-heavy learning environment. I will not get into the details of the assignment here, except to say that I had students all over the country (many had returned home during spring break and never returned to Eugene) in my class, so I received all collections as images submitted via our LMS (Canvas). Because students were in many different places, it was not practical for me to check out our student plant presses the way that I would in an in-person course. To get around this constraint, one of the first labs of the course was an activity where I had the students make their own pressing system.

After a lecture on plant collecting where I shared concepts and strategies for documenting, collecting, pressing, drying, and mounting botanical specimens, I tasked the students with constructing a simple press out of material that should be available in most household recycling bins (newspaper and cardboard). Many students went on to use these impromptu presses to produce herbarium quality specimens. Because of the remote (and thus do-it-yourself) nature of the labs in this course, I was not concerned with them mounting the final collections on proper herbarium-sized sheets. I therefore allowed some flexibility in the size of the presses, but set a minimum size equal to a sheet of regular printer paper. The goal of the collections assignment was simply to give the students practice and not to actually deposit any of the specimens in herbaria.

This short note is to share the simple press-making assignment, and some examples of what the students came up with. Everyone that submitted the documentation got full credit for the days lab activity.

LAB 2: Making a Plant Press

Your task today is to create a pressing system that you will use for your plant collection project. Please post a **brief description** to Canvas (how many pieces of cardboard, what material you will use for 'blotters', capacity, etc.) as well as a **photo of your 'press.'**

The four basic parts of a press are:

- 1 **A COVER** with some way to hold it together. We will use cardboard as the covers to provide some rigidity. You can hold them together with string, or simply leave the whole thing on a flat surface and simply weight it down with a book.
- 2 **The CARDBOARD CORRUGATES** that get layered in between the specimens allow airflow through the press. This facilitates quick drying. You should plan for one 'corrugate' for, at most, every few of specimens. The more you have, the faster things will dry (and will look better!). If you have enough cardboard (and space) a 'corrugate' between every specimen would be ideal.
- 3 **BLOTTERS** help wick moisture away from your specimens. You should have one above AND below the newspaper that holds the specimen. You CAN use a few sheets of newspaper for this job. Alternatively, you could also use a paper towel, or even a rag or tea towel.
- 4 **A FOLDED NEWSPAPER** keeps the specimen in place. You can write directly on this makeshift folder.

You can think of your press as a series of sandwiches consisting of the specimen (in a newspaper) sandwiched between blotters and corrugates. Remember that the main goal is to wick moisture away from the specimen AND allow for good ventilation and airflow. You do NOT need to apply a lot of pressure to 'PRESS' the specimen. You just want it to dry flat.

The Plant Press Sandwich

Cardboard

Blotter

Newspaper

Specimen

Newspaper

Blotter

Cardboard

Eden a
BI448
Policha
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Lab 2

I used 11 pieces of cardboard to act as the cover and the cardboard corrugates, 20 paper towels to act as blotters, and 10 folded newspaper pages to keep the specimens in place. In all this gives space for about 10 specimens to be pressed at a time. I also used twine to kind of bind the press all together without making it very tight because as stated in the handout, we don't need to apply a lot of pressure to press the specimens.



Homemade Plant press Materials 6/25/2020
18' x 12.5' corrugated cardboard (12)
19' x 13 pine shelves for cover (2)
newspaper sheets
paper towels for blotting
2 cm cotton ribbon for holding together (2)

Holds at least 10 samples



Since I moved for Spring, I've got tons of boxes and packing paper to repurpose. I cut 14 pieces of 11.5"x16.5" cardboard (corrugations running the short length) and I put four layers of packing paper and newspaper between them. Each paper is folded in half, forming a pocket. I have more paper if need be for larger or more wet plants as well as several tea towels. I have ratchet straps for when it's finished and a textbook for the top while it's being filled so the plants aren't overly disturbed by the straps being taken on and off. The capacity will depend on the size and thickness of specimens collected, but even if there's only a single specimen between each pair of cardboard pieces, it will hold 23 specimens. It will easily hold several dozen smaller plants.

