

Herbarium Training Course

Bryophyte & Lichen Module

Sarah Taylor & Bernard Goffinet

Department of Ecology and Evolutionary Biology

University of Connecticut



UConn



Specifics
Supplies
Process
Organization

Curation of bryophytes and lichens differs from that of vascular plants. Specimens are...



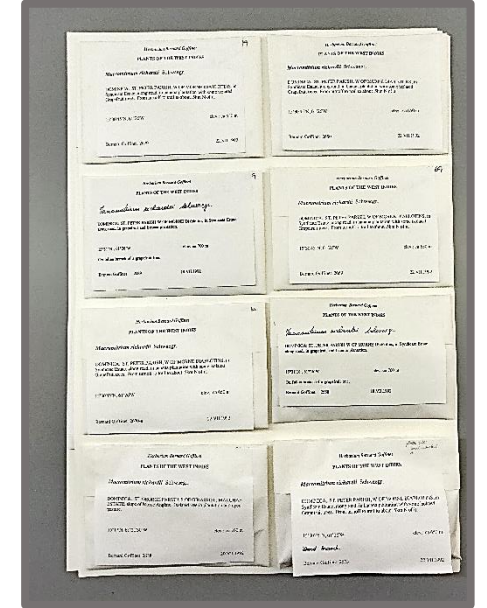
Small



Not pressed



Attached to
substrate



Stored in individual
packets

Workflow

Dry



Label



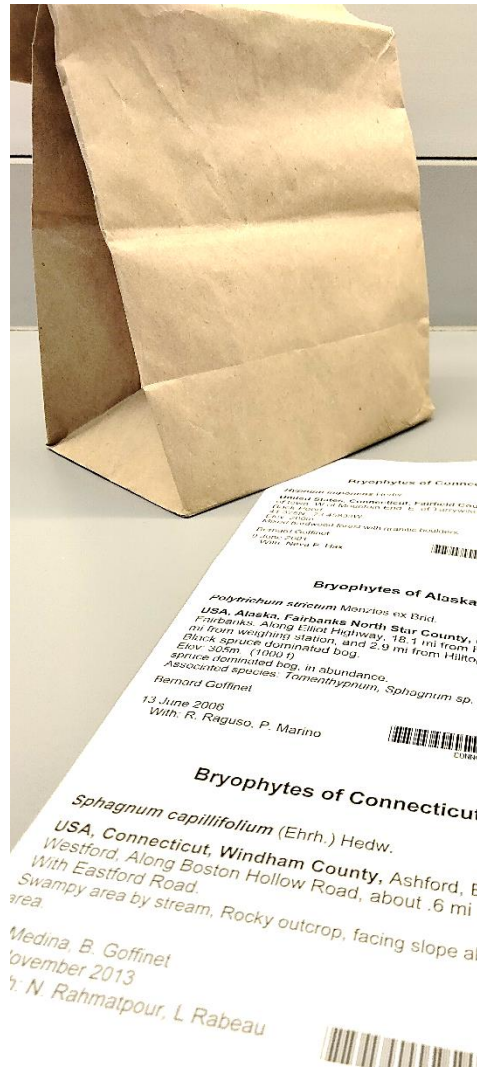
Packet



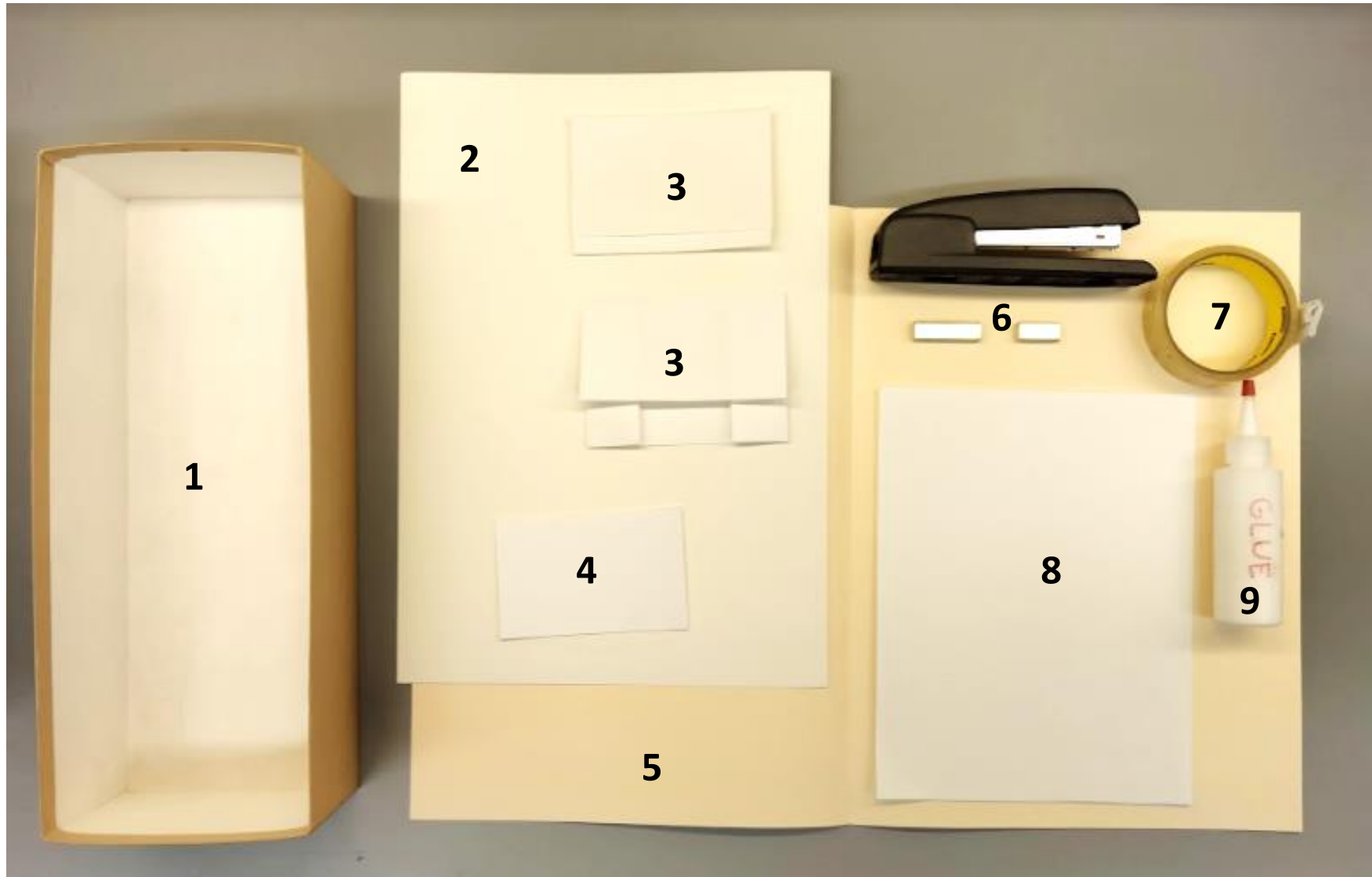
Mount/Box



Organize

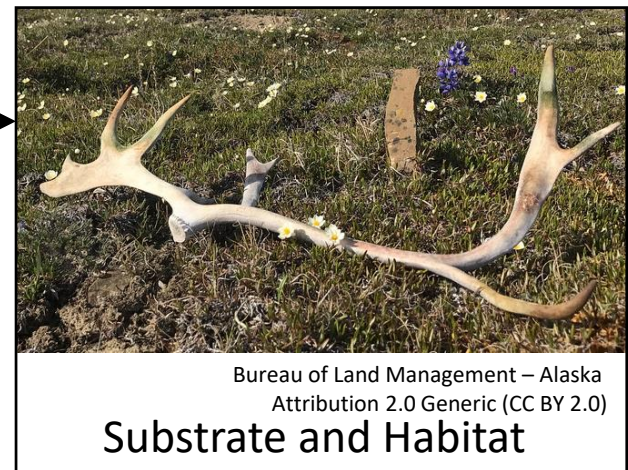
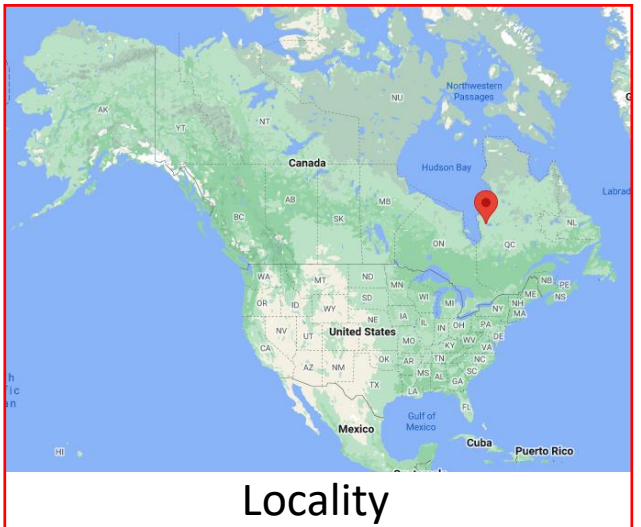


Supplies



1. Box
2. Herbarium paper (11 ½ x 16 ½ inches, pH=7)
3. Folded packets (+/- 4 x 5 ½ inches, pH=7)
4. Cardstock (3 ¼ x 5 inches)
5. Herbarium genus folder
6. Stapler and staples
7. Double-sided tape
8. Paper, pH=7
9. Glue (PVA)

Labels



PLANTS OF CANADA

Tetraplodon mnioides (Hedw.) Buch & Schimp.

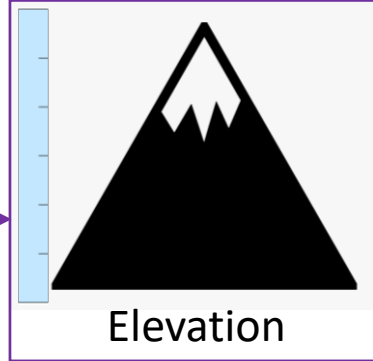
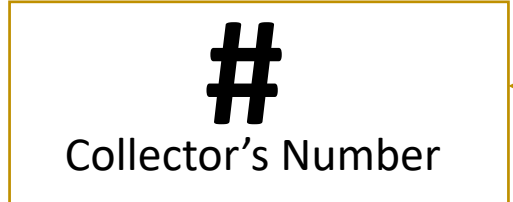
Det: B. Goffinet Oct. 2016 (see note inside)

Province of Québec, Radisson. Ombrotrophic bog
(8,000 yrs old). On caribou carcass. 53°39.201' N,
77°43.500' W. Elev. 167 m.

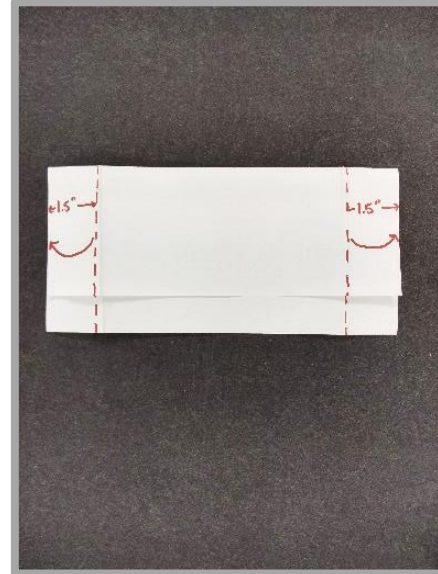
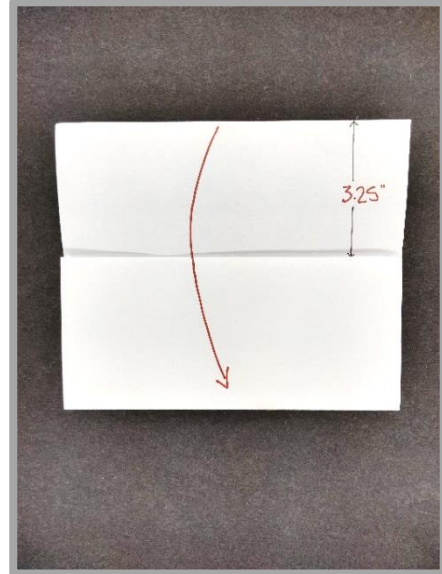
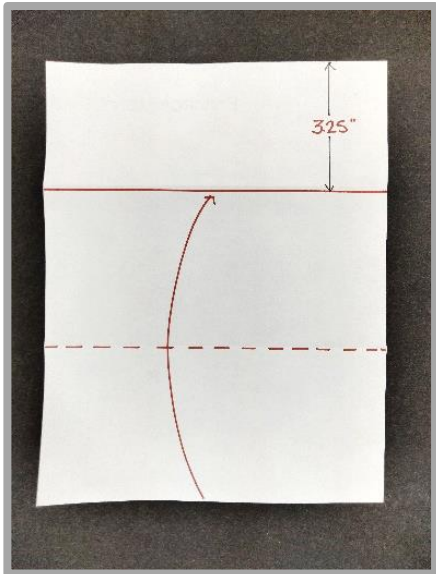
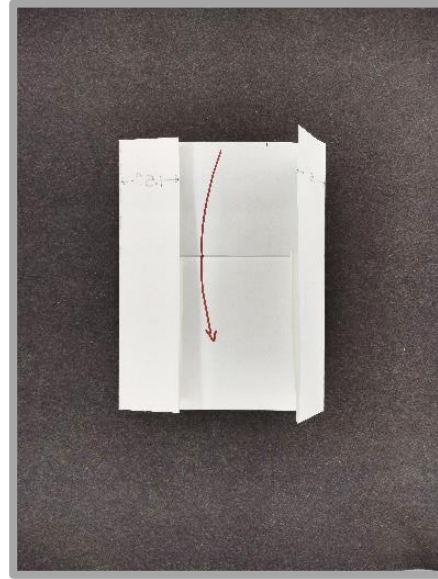
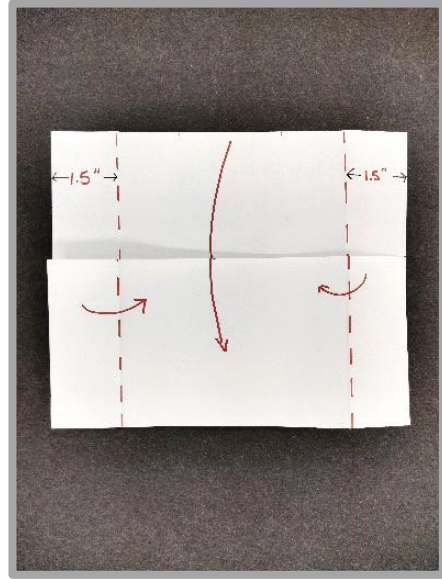
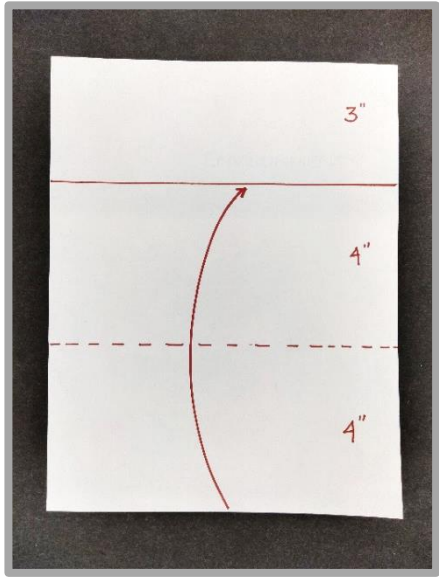
Col. J.C. Villarreal & al.
CA-16-1617

Sep. 3, 2016

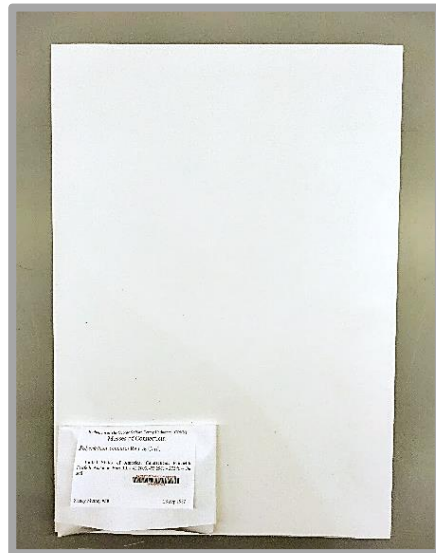
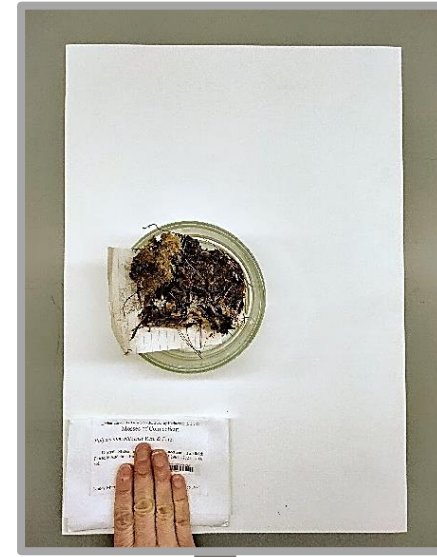
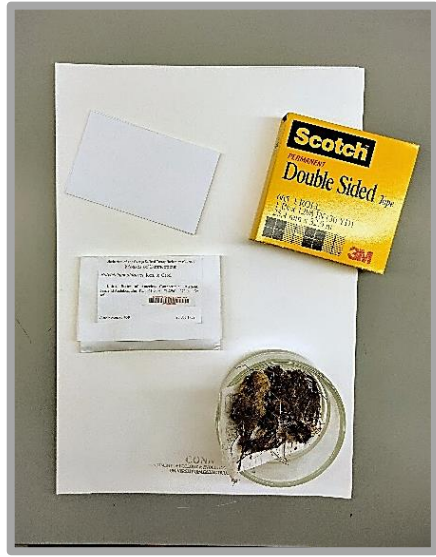
Herbier Louis-Marie, U. Laval (QFA)



Packets (2 styles)



Mounting: Double-sided tape

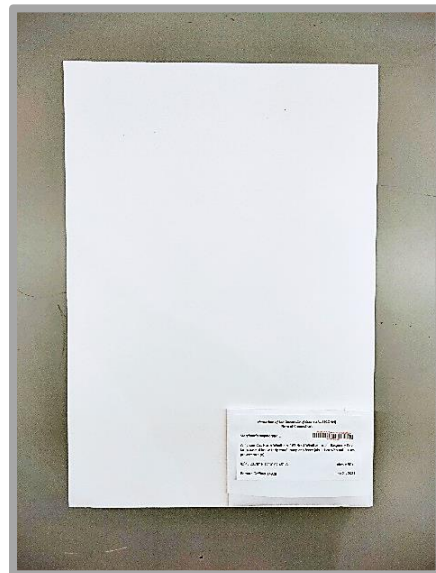
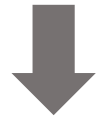
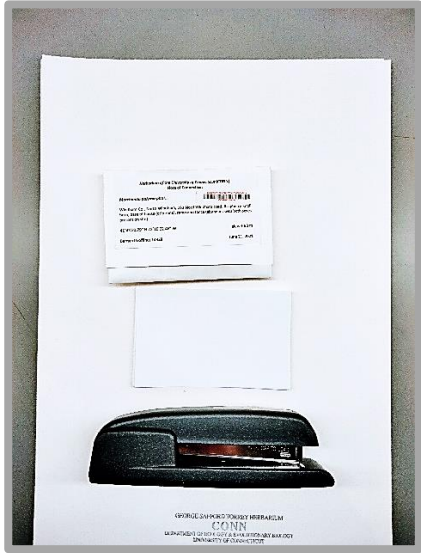


Supplies

- 1 herbarium sheet
- 1 specimen packet
- 1 card (3.25"x5")
- Double-sided tape

Remove specimen from packet and flip packet over. Place one strip of double-sided tape on the back of the packet, then flip over and press onto the herbarium sheet. Place card into packet, then specimen, then fold the packet shut.

Mounting: Staples

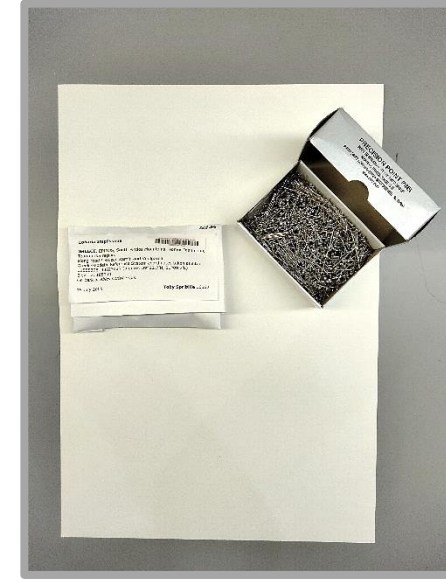
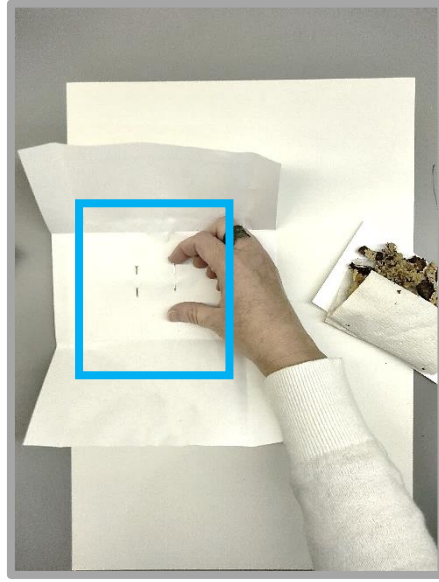
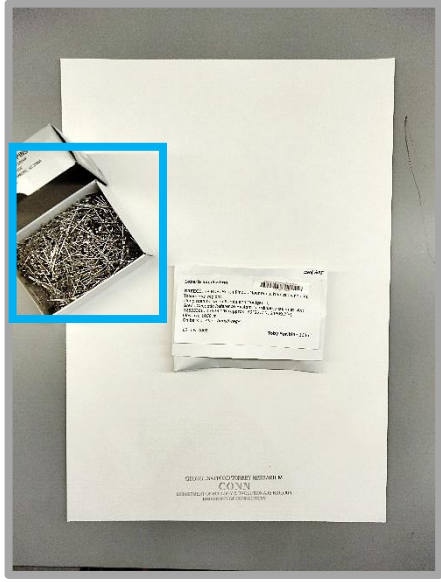


Supplies

- 1 herbarium sheet
- 1 specimen packet
- 2 cards (3.25"x5")
- Stapler
- Staples

Staple the packet to the herbarium sheet through one card for stability. Place the next card on top, then the specimen, then fold packet closed.

Mounting: Pins



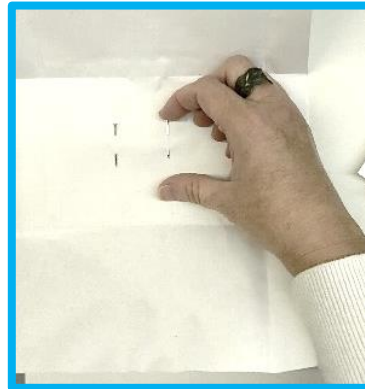
Supplies

1 herbarium sheet

1 specimen packet

1 card (3.25"x5")

Steel sewing pins (1")

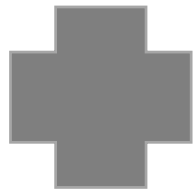
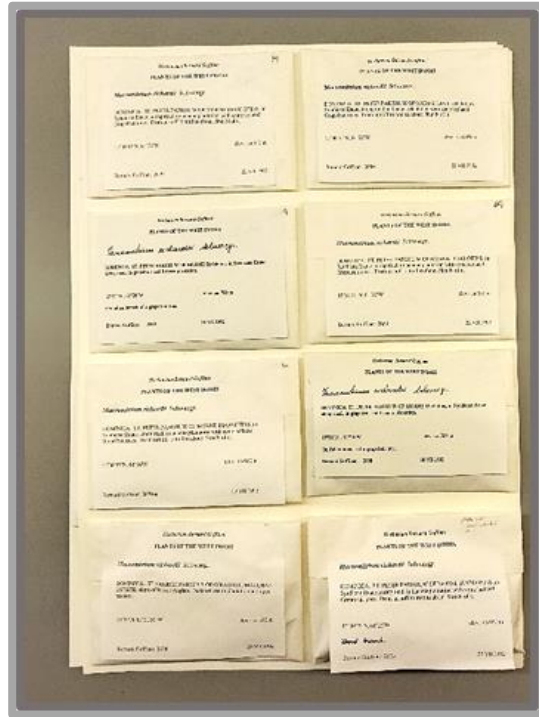


Use two pins to attach the empty packet to the herbarium sheet. Place the card on top, then the specimen, then fold packet closed.

Storing without mounting: bin boxes



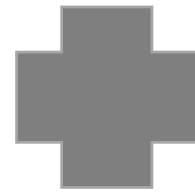
Advantages/disadvantages of mounting vs. boxes



- Can mount packets of different sizes
- Easy to quickly scan multiple packets



- Possible damage to packets when rearranging specimens
- Storing packets flat in folders may lead to crushing

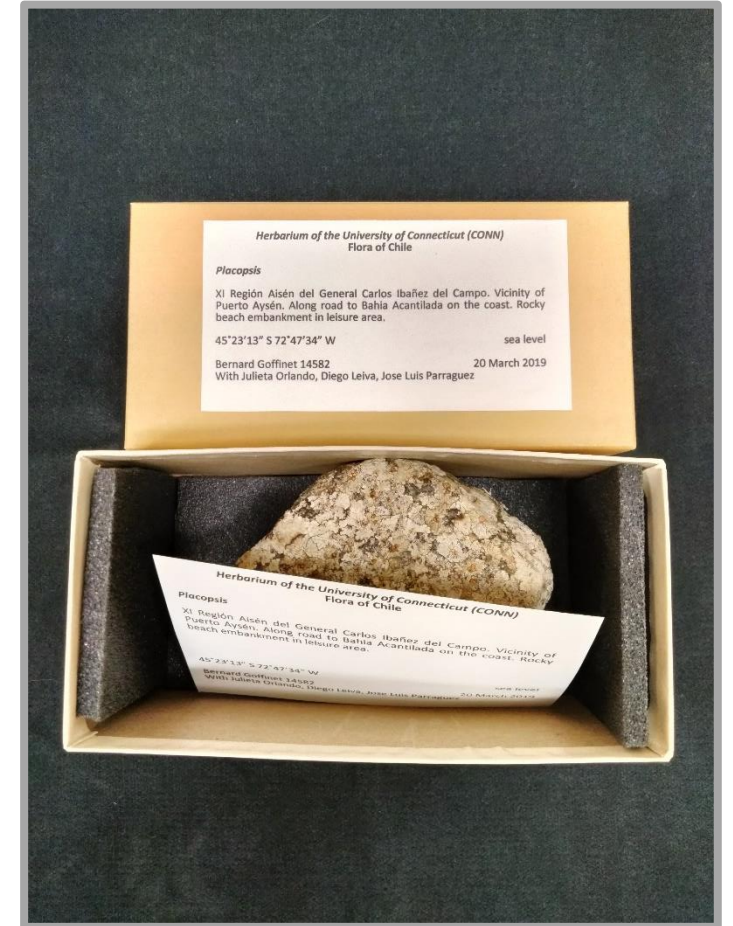
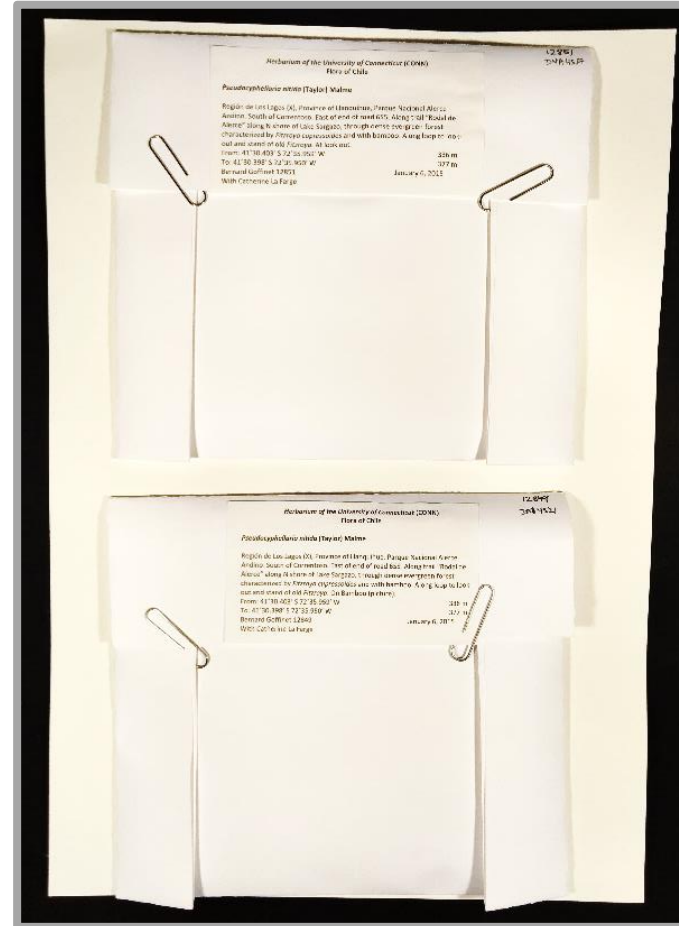


- Easy to rearrange as needed
- Most efficient use of space

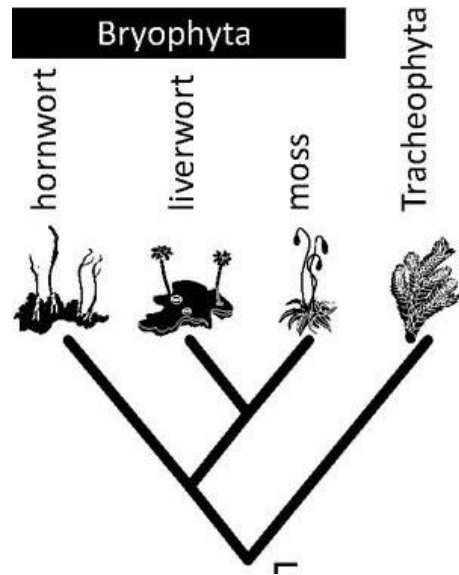


- Large packets may not fit vertically in boxes
- Specimen material may accumulate at bottom of package

Oversize Specimens



Herbarium organization



Systematic: Anthocerotophyta/Bryophyta/Marchantiophyta
(phylogeny from Morris et al. 2018. PNAS 115(10) E2274-E2283,
licensed under CC BY-NC-ND)

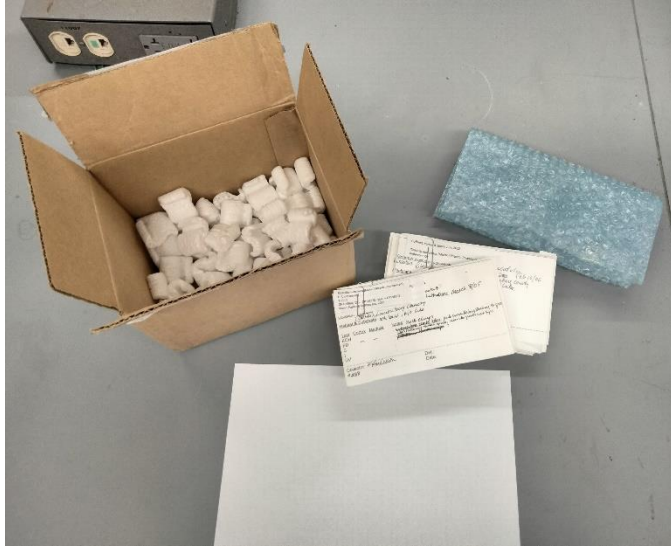


Geographic: continent, country, state?



Alphabetical: family, genus,
species

Packing for shipment



Supplies:
Sturdy box or padded envelope
Specimen(s)
Packing material
Paper
Tape



Wrap unmounted packets in paper for stability and to prevent packets from opening in transit. Wrap in batches of 5-10 packets.



Wrap packets with enough bubble wrap or other padding to prevent movement in transit, and include loan/gift paperwork in box.



Seal all box edges with tape, address package clearly, and add any labels (we stamp "FRAGILE" and "museum specimens for scientific study" on our packages)

Further reading

Lewis, Robin A., and Jessica M. Budke. "Bryophyte specimen organization and storage systems: A comparative assessment of staff practices and user preferences." *The Bryologist* 125, no. 2 (2022): 222-247.