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GREAT LAKES FOREST RESEARCH CENTRE
P.O. BOX 490
SAULT STE. MARIE, ONTARIO
P6A 5M7

Collecting, pressing, and mounting plant specimens

Plant collecting and processing is an important component of a number of research projects at the Great Lakes Forest Research Centre. The purpose of this leaflet is to provide some basic guidelines for the beginning collector.

The plant collector should attempt to obtain flowering and/or fruiting specimens. Herb collections should include roots and other underground parts (e.g., bulbs, rhizomes). These parts are often diagnostic in identifying plants from keys. A plastic sack is used to maintain the collections in a relatively turgid state. Adding a small amount of water to the sacks and placing them in a cool place will allow storage for a few days until you are ready for pressing.



THE PLANT PRESS

A simple plant press can be made from materials readily available around the home. Cut two ends out of half-inch plywood to a size of 30 x 45 cm (12 x 18 in.), and cut a large number of pieces of corrugated cardboard to the same dimensions. The corrugations in all the cardboard pieces should go the same way, across the short dimension. Blotters (same size again) are also helpful in absorbing moisture from the plants and prolonging the life of the cardboard.

Collect two or more specimens so that a newspaper sheet can be filled completely, except in the case of orchids or other rare plants which should be collected sparingly or not at all. Shape and trim the plant such that it will fit between a folded newspaper sheet. Build up layers as follows: cardboard - blotter - newspaper containing plant(s) - blotter - cardboard - repeat. Place the plywood ends around the bundle and tie up the press with straps or ropes, using body weight to press the plants. Place the press over an air vent, lamp, or heat to allow warm air to rise through the cardboard corrugations and slowly absorb moisture from the plants.

Some botanists carry a field plant press consisting of a canvas or plastic carrying case with handles, cardboard, and newspapers for pressing plants immediately upon collecting. This is useful for delicate plants that wilt rapidly or lose their flowers easily.

Plants collected at random with no accompanying information, though useful as general reference for identification and teaching purposes, are not satisfactory for research purposes. Certain basic data should be recorded for each collection, so that a valid label can be prepared. An example of a completed collection label is shown below.

PLANTS OF ONTARIO

Betula glandulosa Michx.

var. *glandulifera* (Rege1) Gl.

Locality	<i>Cochrane quadrat. About 8 km west of Nellie Lake field station</i>	Lat.	Long.
		48° 46' N	80° 52' W

Habitat *In a dug ditch adjacent
to a corduroy soil-fill
road across a treed bog*

Remarks *Shrub 2 m tall*

Collector (Name) Coll. no. 2673 Date 5/6/69

Det. by (Name) Det. date 21/6/69

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Plant specimens are artfully positioned on a high-quality stiff white sheet 29 x 43 cm (11½ x 16½ in.), weighted down with large washers, and cemented onto the sheet by placing strips of general-purpose wood glue across stems, branches and leaves at strategic locations. The label is glued to the sheet in the lower right corner.

If you wish to start a collection, obtain a small, hard-cover book (e.g., standard level book) and number your collections sequentially (i.e., 1, 2, 3, etc.). Information on location, habitat, date of collection, etc. (see label) is taken for each number,

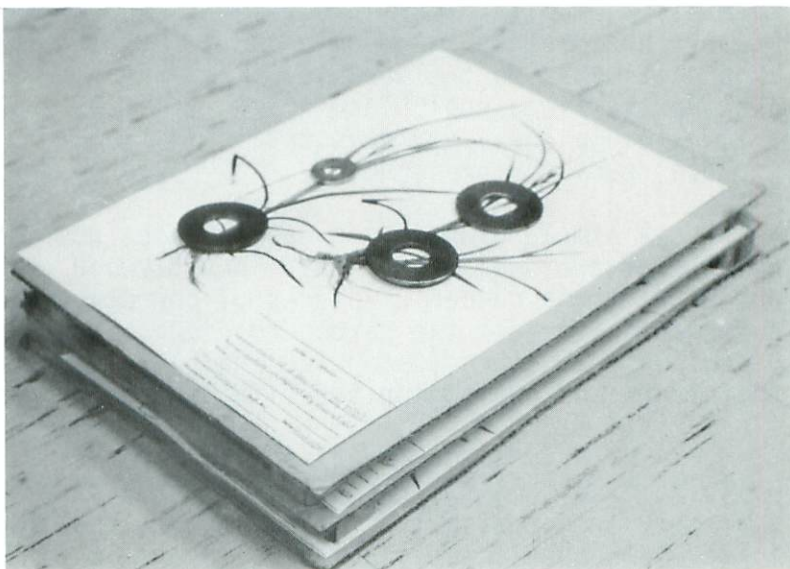
or for groups of numbers to which the same data apply.

If you wish to deposit collections in the Herbarium of the Great Lakes Forest Research Centre, or learn about the collection and care of special groups of plants (e.g., fungi, mosses, lichens), contact the Information Office at the Centre.

SUGGESTED READING

SAVILLE, D.B.O. 1962. Collection and care of botanical specimens. Can. Dep. Agric. Publ. 113. 124 p.

SMITH, C.E. 1971. Preparing herbarium specimens of vascular plants. USDA Agric. Inf. Bull. No. 348. 29 p.



A STACK OF PLANTS BEING MOUNTED--NOTE POSITION OF HEAVY WASHERS, LABEL, AND METHOD OF BUILDING THE STACKS.

J. K. Jeglum

Copies of this leaflet can be obtained from the Centre's Information Office.

August, 1977