

Plant Collecting

Ben Kruser, The Leader, May 1991

Plant collecting is an extremely easy and rewarding activity for any section. You can use the collections in anything from simple displays to formal camp flora inventories but, before you start, consider these guidelines.

1. You need a purpose to make a plant collection. Perhaps the pack wants to have a collection of local tree leaves to review or a troop wants a set of edible plant specimens for close-up study.
2. Know your provincial and federal laws for picking plants. Plants within park boundaries are protected, and endangered plants are protected wherever they are.
3. Make a teaching collection of common roadside plants, picking only one or two. Teach Scouts the benefits of studying plants in their natural wild state as well as in a collection.
4. For rare plants, take pictures only and have Scouts mount them in a photo album.
5. Respect private property.

Collecting Method

The best specimens show as many features of the plant as possible: roots, stem, leaves, buds, flowers, and fruit. Given the difficulty of trying to compress your average Sequoia semper virens into a small size, you can collect samples of leaves and twigs. Separately dry and store large fruit such as cones and acorns.

Arrange the plant to show different sides of leaves and flowers. This is especially important when pressing ferns, since the spores are only produced on the underside. If the plant is too big for the paper, bend it several times into an "N" shape.

Identify the plant before pressing and record its name, the collector's name, plant location, and other pertinent data on a sticky label. Keep the label with the plant. Once the specimen is permanently fixed to display paper, attach the label in the lower right hand corner. Check with a local university or botanist for other tips on collecting and labelling plant specimens.

Pressing & Mounting

A plant press consists of pressing boards (plywood), ventilators (corrugated cardboard), drying paper (white paper), and blotters (newspaper). Make pressing boards from 6 mm plywood by cutting out two pieces 30 cm x 45 cm. To press a plant specimen, lay one board on a table. Fold three newspaper sheets in half and lay on top of the board to act as blotters and absorb plant juices.

Next put down a piece of white construction paper or plain writing paper for the plant to dry on. Place the plant on the paper and cover with another sheet of white paper. Fold another three newspaper sheets in half and place on top. Now put on a piece of corrugated cardboard, which ventilates the pile and quickens drying time by allowing air to flow between the plants.

Continue in this way for each plant until the stack is about 15 cm high. Finally, place on the second board and press, either by putting a weight on top or wrapping belts around the boards and pulling tight.

Let dry for a full day. Open up the press and replace newspaper and white drying paper with fresh sheets. Stack specimens again and press for another one or two days until they are dry to the touch. It may take them up to a week to dry thoroughly.

For mounting, choose heavy white paper or card stock that will hold up to handling. Spread a thin layer of white glue over the surface of an old cookie sheet. Pick up the plant with a pair of tweezers and press down lightly on the glue. Carefully lift and arrange on the mounting paper. Cover the plant with another piece of white paper and press until the glue has dried. If you don't want to use glue, you can tape the specimen along the stem or leaf edge.

Plant Collecting Program Ideas

1. Here's an idea useful for field teaching. Mount specimens on 5 x 8 index cards. On the lined side, write information about the plant; how people use it, where it grows, its value to wildlife, and other notes. On the plain side, mount the specimen, then laminate the entire card.

Sets of these cards are very handy and easy to carry. Children readily handle them and use them to find living specimens, and the plastic covering protects them from water and wear. You can hole-punch and string them and give a set to each lodge, six or patrol as a scavenger hunt "list" of plants for them to find in the wild.

2. If you live near the coast, consider collecting marine plants. Algae, commonly called seaweed, can make very striking mounts. First soak the algae in fresh water for about 30 minutes. If you don't, the salt will prevent the plant from drying completely.

You can dry coarse or thick seaweed such as kelps in the usual way. If you have delicate, thread-like algae, such as sea moss or featherweed, float the specimen in a shallow pan of water and slip a piece of mounting paper under it. Move the paper gently to set the algae in motion. When the seaweed has feathered out into a natural form, gently raise the paper and let the water drain off slowly. Place in the drying press and cover the algae with a sheet of wax paper. Put plenty of blotting paper underneath and press until dry.

You won't need to do any glueing because the gelatinous substances in algae fix it to the paper. When the specimen is dry, gently peel off the wax paper.

3. Build a winter weed collection. Collect samples of wildflower stalks that remain in winter. Try to identify and match them to plant samples you collected during the growing season.

Program Applications

Beavers: Nature provides close-up handling and comparison of leaves, twigs and other plant parts. Plant collecting helps develop an understanding of relationships (maple seeds come from maple trees, acorns from oak trees, etc.) and awareness of size and shape.

Cubs: Black Star 2 & 6; Observer 4 & 6; relate to Blue Star 1 (Maple Leaf) & 14 (inventory of plants in area); Law Awareness 2 (plant protection); Winter Cubbing 3; Tawny Star 14; Collector, Carpenter (make plant press boards), World Conservation Badge 1c, 4, 6.

Scouts: Conservation Badge forestry related requirements; Adventuring (preparation for survival hike); Agriculture (press common crop plants); Collector; Horticulture; Naturalist; Scoutcraft; Science Troop Specialty (Botany). Work with a park or nature centre to press plants as a service project.

Venturers/Rovers: Help with a university or government flora inventory. Find out what plant species are absent from academic collections and where they might be found. Try to locate and collect them. Help your local camp or nature centre build a herbarium where plant collections are stored along with a representative sample of native plants.

Resources

Native Trees of Canada, by R. C. Hosie; *Fitzhenry and Whiteside Limited in corporation with the Canadian Forestry Service*, 1979.

The Audubon Society Field Guide to North American Trees, Alfred Knopf Inc., 1980.

A Golden Guide to Seashores; Zim & Ingle, Golden Press.

Peterson Field Guide Series (Edible Wild Plants, Wildflowers, Rocky Mountain Wildflowers, Trees and Shrubs).

Golden Guides (Weeds, Trees).

Weeds in Winter, by Lauren Brown; Houghton Mifflin Co., Boston, 1977. An excellent book on identifying plant stalks and parts in winter: great for discussions about adaptation, seed dispersal, and other topics. Provincial museums, parks, and better book stores also stock books on native flora (e.g. *Saskatchewan Wildflowers*).