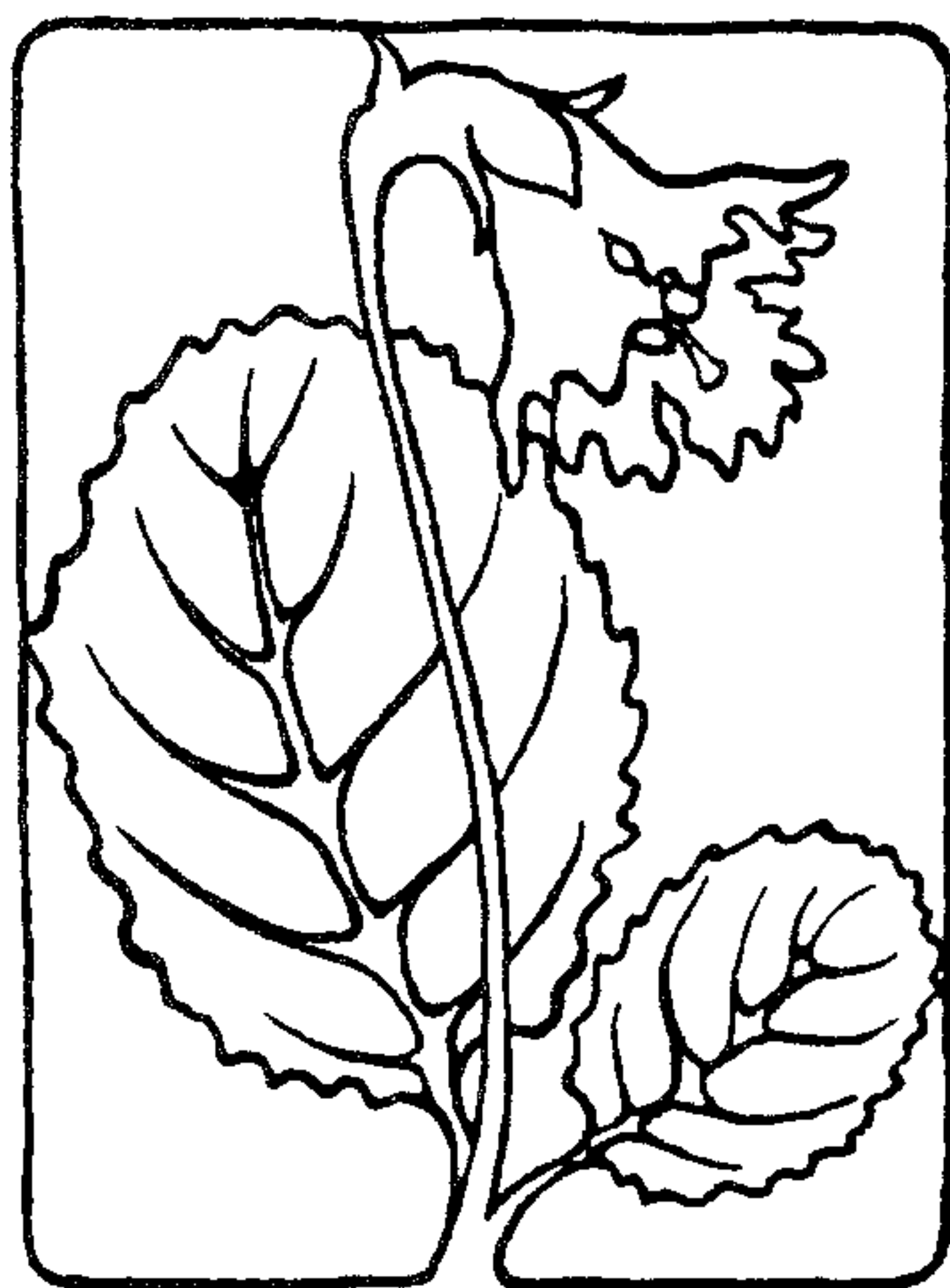


# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB

AUTUMN 1989



DOROTHY RATHMANN, Editor

FROM THE PRESIDENT'S DESK.....Bill Verduin

Before the snow flies we will have our fall meeting of the Program Committee. The meeting will plan programs for February through June. These meetings are well attended, usually ten or more members, and last three or four hours. This is, no doubt, the most important work your officers and leaders do -- and it's not as easy as one might think. We take pains to balance far trips and close in ones, easy walking and more difficult, low elevation areas and high mountains, woodland and more open fields and edges. We must be concerned with ownership and permissions, with adequate parking area, with safety on the roadside and trail. Indoor meetings must be balanced between workshops, educational presentations and entertaining slide shows. We try to balance the interests of the more serious botanists among us and members who just enjoy "smelling the daisies" no matter what they are called. Do we have a job? You bet we do!!

You know what would help us most, don't you? Ideas, reactions, evaluations, preferences, comments, complaints -- just anything at all that would be of some value to us as we try to do our balancing act. We want to plan programs that the most members will enjoy the most. At the same time, we want some programs that will stimulate interest in things botanical at a deeper level than just a name. We want to challenge members to develop a better understanding of such things as plant family relationships, species associations in different habitats, and other such things that will increase your enjoyment whenever and wherever you linger to "smell the daisies."

So speak up! Make your wants and wishes known. We look forward to a lot of input from all of you good members. Program Committee:

- |                       |                       |                        |
|-----------------------|-----------------------|------------------------|
| Millie Blaha          | Ivan Kuster           | Bessie & Ken Sinish    |
| Charlotte Carman      | Harry Logan           | Dick & Jeanne Smith    |
| Louise Foresman       | Bud & LaVerne Pearson | Ben Tuller             |
| Barbara Hallowell     | Lowell Orbison        | Bill Verduin, Chairman |
| Elton & Aline Hansens | Don Prentice          |                        |

**ADDITIONS TO 1989 MEMBERSHIP LIST**

Hendersonville, NC 28739 unless otherwise indicated

- \*Herrman, Donald & Katherine, Rte. 4, Box 229b.....877-3532
- \*Keenan, Mary E., 24 Euclid Pkwy, Asheville, NC 28804.....253-5277
- Kent, Anne, 3236 Heritage Circle.....697-6052
- \*McVay, Betty Lou, 3241 Heritage Circle.....697-1415
- Pearson, Leonard & Ruth, 2231 Old Kanuga Road.....693-7706
- Rieber, Jesse & Agnes, Indian Springs Park, Lot 32, R69, Box 435....  
410 SW Natura Ave., Deerfield Beech, FL 34441
- Taylor, Fred, 48 Woodward, Asheville, NC 28804.....
- Wright, Chester & Helen, 125 Rockwood Dr., Greenville, SC 29605  
.....803-277-4232

\*New Member

RECORDER'S REPORT.....Bessie Sinish

Every Botanical Club field trip is an Adventure -- especially this summer for both rain and/or cold weather have helped to either increase the blooms of many shrubs and plants or slowed down the last stages of the flowering plants which, thus, caused fewer blooms or none at all. Meanwhile ferns, lichens, mushrooms flourished under these conditions.

Our field trips took us to many varied environments. Four I would like to emphasize. First: On the Daniel Creek Trail which led us into a cove, a narrow gap running north and south between steep slopes with a stream at the bottom, we came upon a beautiful stand of Maiden Hair fern (Adiantum capillus-veneris) covering an area of approximately 20 by 40 feet. The delicate, freshly washed green of its leaves against the dark wet earth was breathtaking. Yes, this was a rainy trip!

Second: On the trip to Black Camp Gap, a disturbed and open area where there were quantities of flowers, colorful and varied against a blue, blue sky, we found agrimony (both Agrimonia gryposepala and A. parviflora), Monarda didyma and purple and white M. fistulosa, yellow fringed orchis (Habenaria ciliaris), the tall bellflower (Campanula americana) and, rare today but considered a weed yesteryear, butter-and-eggs (Linaria vulgaris) as well as sunflowers, Queen Anne's lace, lilies and many, many more varieties. Pinks, blues, white, yellows, oranges and lavender -- all colors of the rainbow on this a glorious summer day in the Smokies.

Third: For me, one of the greatest adventures was right here in our own backyard -- Jackson Park. We entered Jackson Park through a climax forest of oaks and hickories. Silverbell, fringe trees, dogwoods, blueberry bushes were among those deciduous plants found in the community below the hardwoods. In the third community there were many species of ferns and leaves of flowering plants telling of a Spring past. Down the hill through a pine forest, we came to an open area with black-eyed Susans (Rudbeckia hirta), thistles, etc. Further on in the wet meadows, willows, sycamores, fox grapevines and arrowhead (Sagittaria latifolia var. pubescens) dominated the landscape. Found in and around the pond was the beautiful plant water shield (Brasenia schreberi) and the swamp rose (Rosa palustris). In the Fall the Botanical Club is planning to return to this area. Do come and see this small and unique spot in our own backyard.

Fourth: Close by, high on Pinnacle Mountain above Holmes State Forest is another unique habitat. Here is a dry ridge with rock outcrops giving us some unusual plants, such as, pencil flower (Stylosanthes biflora), fame flower (Talinum teretifolium), fern-leaved false foxglove (Aureolaria pedicularia) and others.

Everywhere we go -- for new members and for all of us -- there are new adventures in seeing, in listening, in appreciating and feeling the joy in closeness to the out-of-doors. A beautiful experience for us all.

Wet land or waste land? In this country in the mid-1800's, the government decided that wetlands were synonymous with waste lands. The Swamp Wetlands Act gave 15 states 65 million acres of wetland for "reclamation" which meant draining the wetlands so that they would be used "more constructively". Of the 215 million acres of wetlands that existed in colonial days, only 99 million acres now remain. In areas of N. C., 66 to 80 percent of wetlands have been destroyed. Now that the attitude toward wetlands is changing, some farmers in the midwest have stopped draining potholes and are allowing them to revert to their original state. Wetland inventories are being taken and legislation passed to protect the wetlands which still exist.

What are wetlands? The U. S. Fish and Wildlife Service which is currently conducting a nationwide inventory of these areas, defines wetlands as areas where water is the primary factor controlling the environment and the associated plant and animal life.

The need for oxygen. Plants in all environments must compete for light, nutrients, water and oxygen. For plants which grow in wet areas, oxygen poses a special problem because oxygen diffuses about 4 times more slowly in water than in air. Upland plants have ample oxygen between the soil particles around their roots but plants with wet feet, whether growing in saturated soil or with roots actually submerged in water, have had to adapt their structures to obtain enough oxygen to survive. Plants growing in fast running water have more oxygen available but they have to develop ways of anchoring themselves so they will not be washed downstream. Luckily for us, many plants have adapted to these special conditions.



*Habenaria  
lacera*

Micro-climates and micro-habitats. In western North Carolina, we have no natural lakes, no estuaries, no wide expanses of swamps and marshes. As we focus on habitats this year in our botanical studies, we need to look for "micro-climates" and "micro-habitats" which fit the wetland definition. Our wet micro-habitats or micro-wetlands can be wet rock faces and the tiny bog areas around the base of these rock faces. They can be the ground bordering rivers, streams and waterfalls. There is a small hanging bog near Graveyard Fields and a seepage bog at Pink Beds. In Henderson County there are ponds and a wet meadow at Jackson Park. Millie Pearson is monitoring a wet habitat on her property in Saluda. Pearson's Falls Glen, the wild life preserve also in Saluda, is dominated by the flow of Colt Creek on its way to the Pacolet River. The constant seepage of cold water over the northern exposure of the massive rock cliffs at Chimney Rock provides a home for plants of the Arctic tundra.



Some plants of wet places

which may be found in

our area are listed

on the next page.

In the orchid family (Orchidaceae):

- |                         |                      |
|-------------------------|----------------------|
| Green adder's mouth     | Malaxis unifolia     |
| Green fringed-orchid *  | Habenaria lacera     |
| Large rosebud orchid *  | Cleistes divaricata  |
| Small green wood-orchid | Habenaria clavellata |

In the saxifrage family (Saxifragaceae):

- |                               |                            |
|-------------------------------|----------------------------|
| Grass of parnassus *          | Parnassia asarifolia       |
| Golden saxifrage, water mat * | Chrysosplenium americanum  |
| Michaux's saxifrage           | Saxifraga michauxii        |
| Lettuce saxifrage             | Saxifraga micranthidifolia |

At the ponds and wet meadow at Jackson Park in Henderson County:

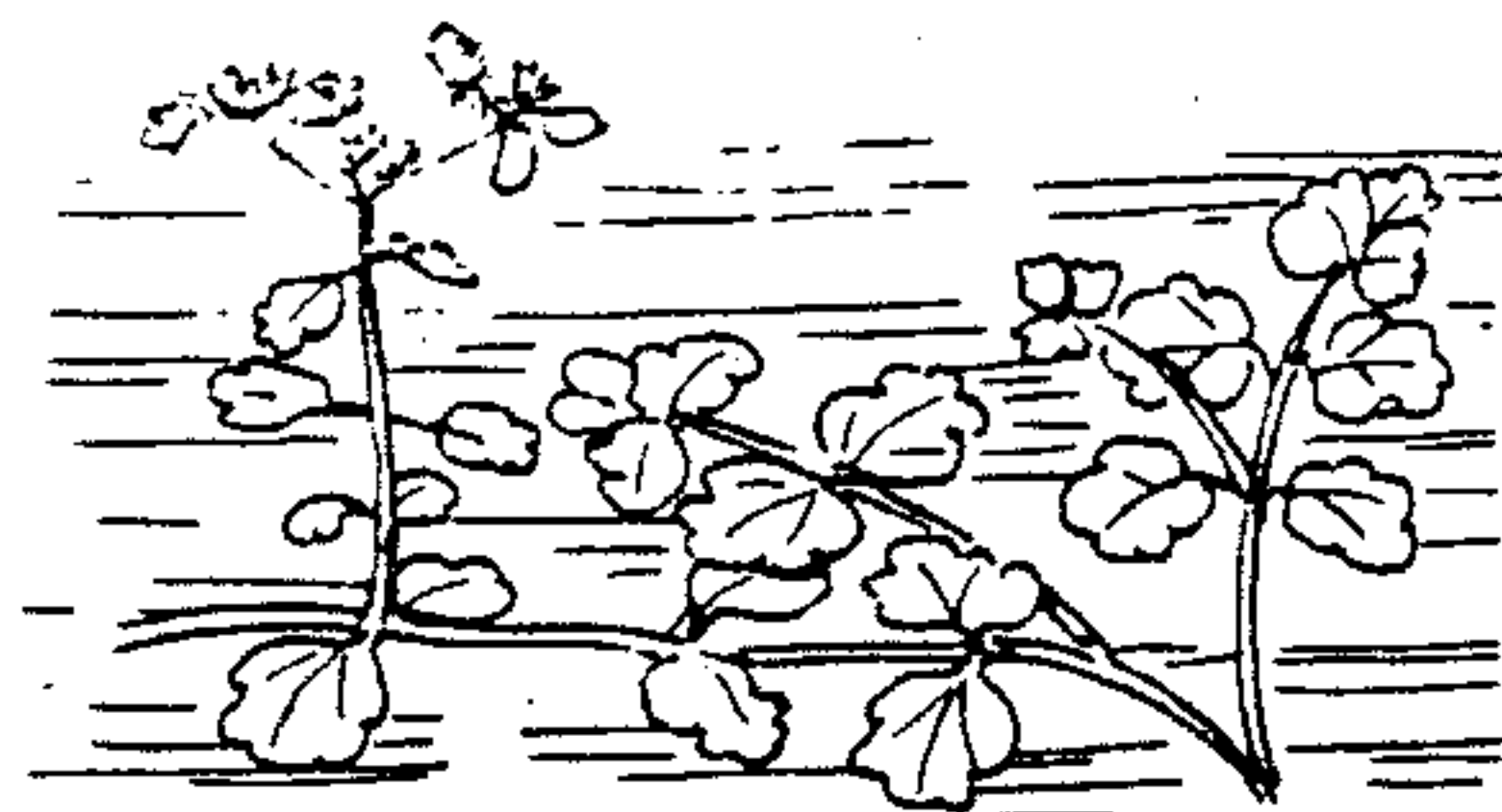
- |                   |                       |
|-------------------|-----------------------|
| Bladderwort       | Utricularia gibba     |
| Duck potato       | Sagittaria latifolia  |
| Cardinal flower   | Lobelia cardinalis    |
| Meadow sweet      | Spirea alba           |
| Pickereelweed     | Pontederia cordata    |
| Swamp loosestrife | Lysimachia terrestris |
| Swamp rose        | Rosa palustris        |
| Water shield      | Brasenia schreberi    |

Other plants we see in wet areas:

- |                     |                        |
|---------------------|------------------------|
| Black willow        | Salix nigra            |
| Canada burnet *     | Sanguisorba canadensis |
| Common or tag alder | Alnus serrulata        |
| Jewelweed           | Impatiens capensis     |
| Marsh violet        | Viola cucullata        |
| Round-leaf sundew * | Drosera rotundifolia   |
| Umbrella leaf       | Diphylleia cymosa      |
| Water hemlock       | Cicuta maculata        |



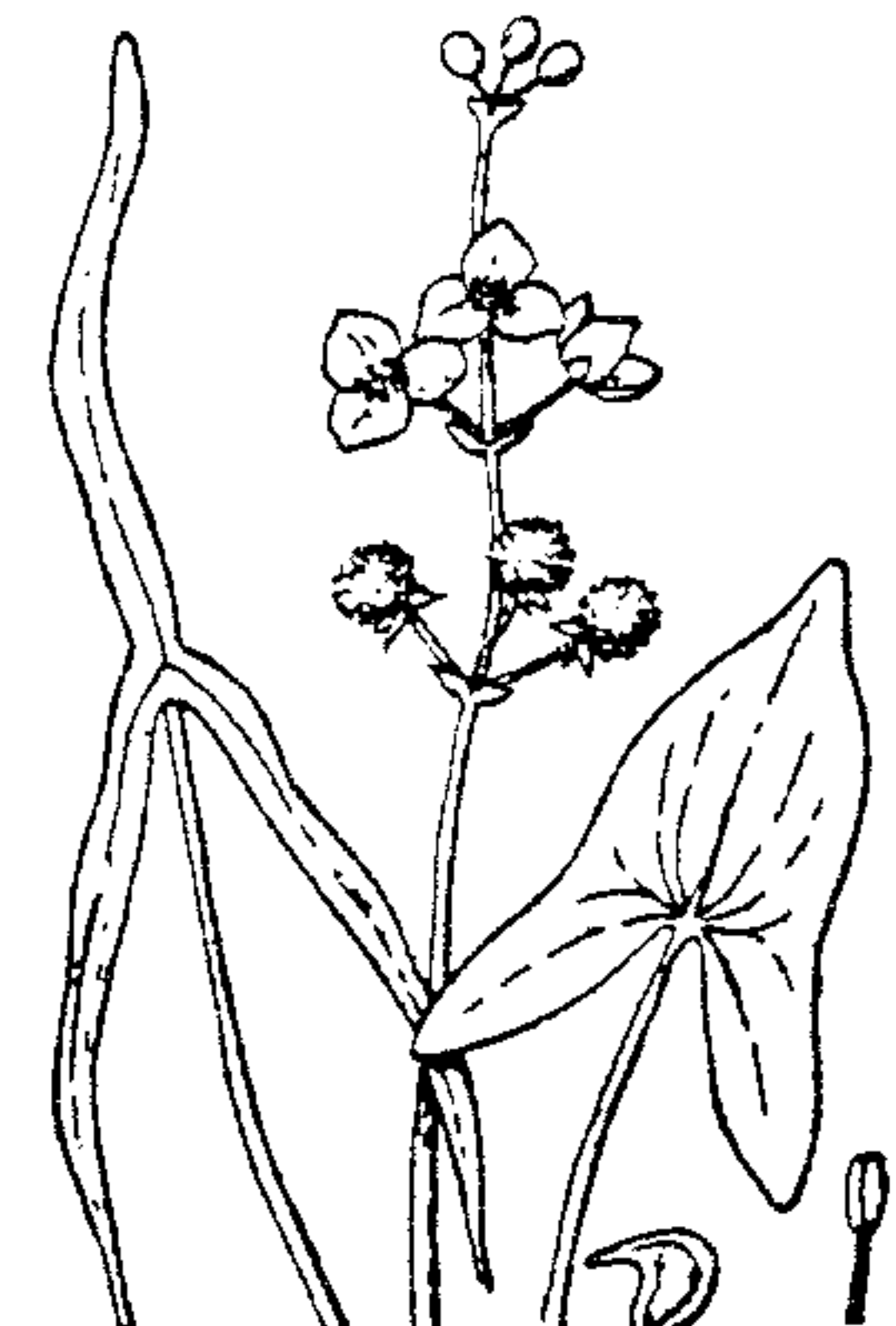
SMALL WOOD ORCHIS



Water-mat Chrysosplenium americanum



SWAMP ROSE



ARROWHEAD

\* Listed as rare in "Manual of the Vascular Flora of the Carolinas" by Radford, Ahles and Bell

NOTES ON THE FRANKLIN TREE, FRANKLINIA ALATAMAHA.....Miles Peelle

Floral tree display in late summer and early fall is seldom spectacular -- in fact, few species bloom that late. The Franklin tree is the exception and well worth attention for its aesthetic and botanical interest. In many gardens this is the main attraction, just before the splendor of leaf color.

The Franklin tree is a curious survivor of habitat loss -- rescued without plan from total extinction. Its range in the Southeastern Georgia lowlands was probably very restricted long before the Bartams discovered it in 1765. The description recorded at that time is as a "curious shrub." Later in 1780 and 1790 William Bartram saw it again in a small area on the northeast side of the Alatamaha River, near the coast of Georgia. Later searches were made, but it has never been found in the wild since then. It is thought that William Bartram planted seeds in the Bartram garden in Philadelphia; trees from the garden were available soon thereafter to spread the trees to many locations.

Strange as it may appear, the tree cannot survive in plantings near its original early Georgia habitat. Perhaps the development since the late 1700's of cotton root rot is the inhibitor of the Franklin tree there. Plantings as far north as Southern Michigan and Massachusetts survive with protection; in the midsouth it does well.

The Franklin tree is a member of the Tea family and is closely related to the redbay (Gordonia lasianthus). Often Franklin trees are called the "Lost Gordonias." In winter the large silky buds protect it during moderate cold snaps. If leaves appear too early in spring, buds elsewhere are in reserve and take over after the basic buds are lost. In fall, leaves are orange to red in contrast to the large white camellia-like flowers. It grows well only in full sun. If you have never seen the lovely flowers in late September or early October, an excursion to Charles Moore's garden in Brevard would be rewarding -- white flowers as large as tea cups, filled with golden stamens!

Recently the Bartrail Association sold 10-14 inch potted seedlings at its annual meeting in Brevard. College Walk residents obtained some specimens, two of which are growing well this season. Perhaps these trees in the future will add to the beauty of the grounds with late summer bloom. [Data from Claire Sawyer "The Franklin Tree" in HORTICULTURE page 64 (July 1989), and W. & M. Duncan TREES OF THE SOUTHEASTERN UNITED STATES (Univ. Ga. Press, pages 195, 309 (1988))].

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As we were completing this issue of SHORTIA Dick Smith told us he has received the first copies of his book, WILD PLANTS OF AMERICA -- A Select Guide for the Naturalist and Traveler. We'll have a review in the next issue. Congratulations, Dick!

# LOOK AGAIN !

A number of years ago the conservation department of an eastern State issued a list of plants which it had decided should be accorded statutory protection. Predictably, it included *Arethusa*, Golden-seal and Green Dragon, but to the surprise of many it also named *Celastrus orbiculatus*, or Bittersweet. The intent, as they were quick to explain, was to list *Celastrus scandens*, which is the native vine known as Climbing or American Bittersweet, or Waxwort. Instead, they had inadvertently placed under the protection of law a rampant, destructive escape called Oriental Bittersweet by those anxious to avoid such confusion. To be fair, though, the error is one that is frequently made, and examples are easy to find in the literature.



*C. ORBICULATUS*

*C. orbiculatus* was imported in comparatively recent times and cultivated for its colorful fruits, which persist into the winter and are eminently useful in decorative floral arrangements. (Exploitation of the less resilient *C. scandens* for this purpose was responsible for its disappearance from many localities.) In both species the smooth, yellow, globular capsules develop in early fall from the pistillate flowers, which are greenish and quite inconspicuous. When they mature--and

you can induce this by bringing them into a warm house--they split open along three sutures and the segments become reflexed, revealing a shiny, brilliant red aril.

The arrangement of these fruits is diagnostic: In *C. orbiculatus* they occur in axillary cymes of no more than three, whereas in *C. scandens* they form a terminal panicle containing many more. Also, the leaves of the introduced species are relatively broader, becoming nearly round (hence the specific name).

Bittersweet vines climb by twining around small trees and holding on in a relentless death-grip. Many a hiker's walking stick is marked by deep spiralling grooves that attest to the struggle between a sapling and a Bittersweet.

*Dick Smith*

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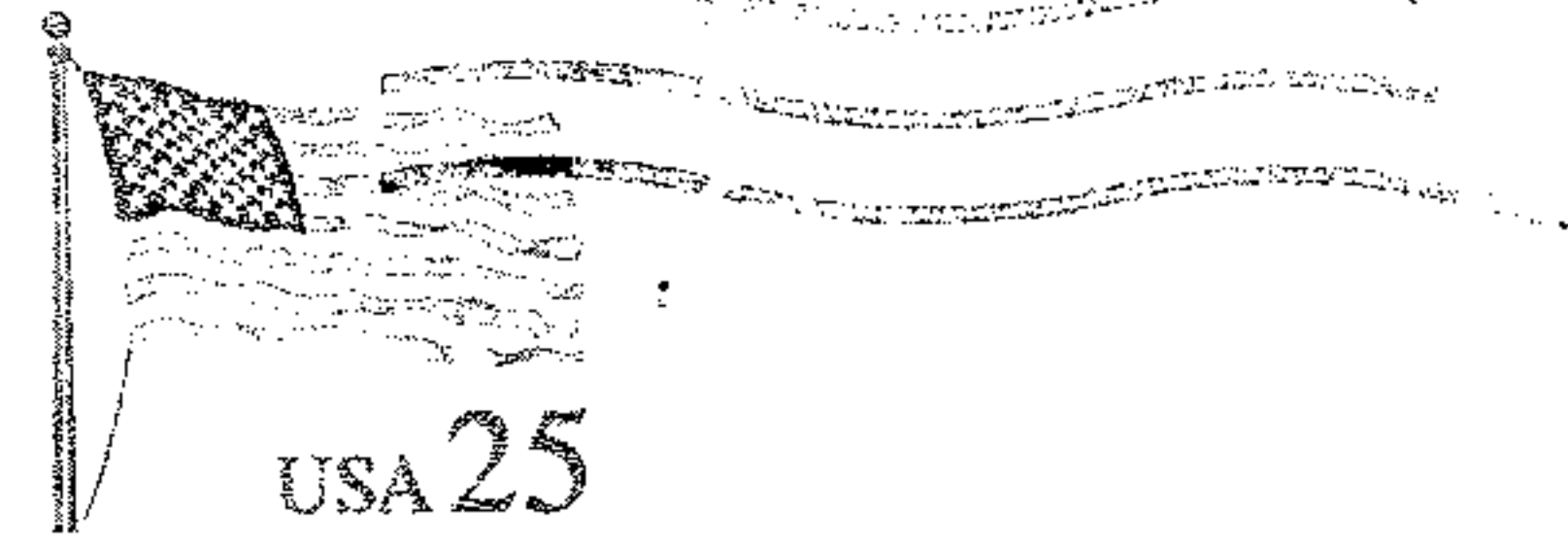
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