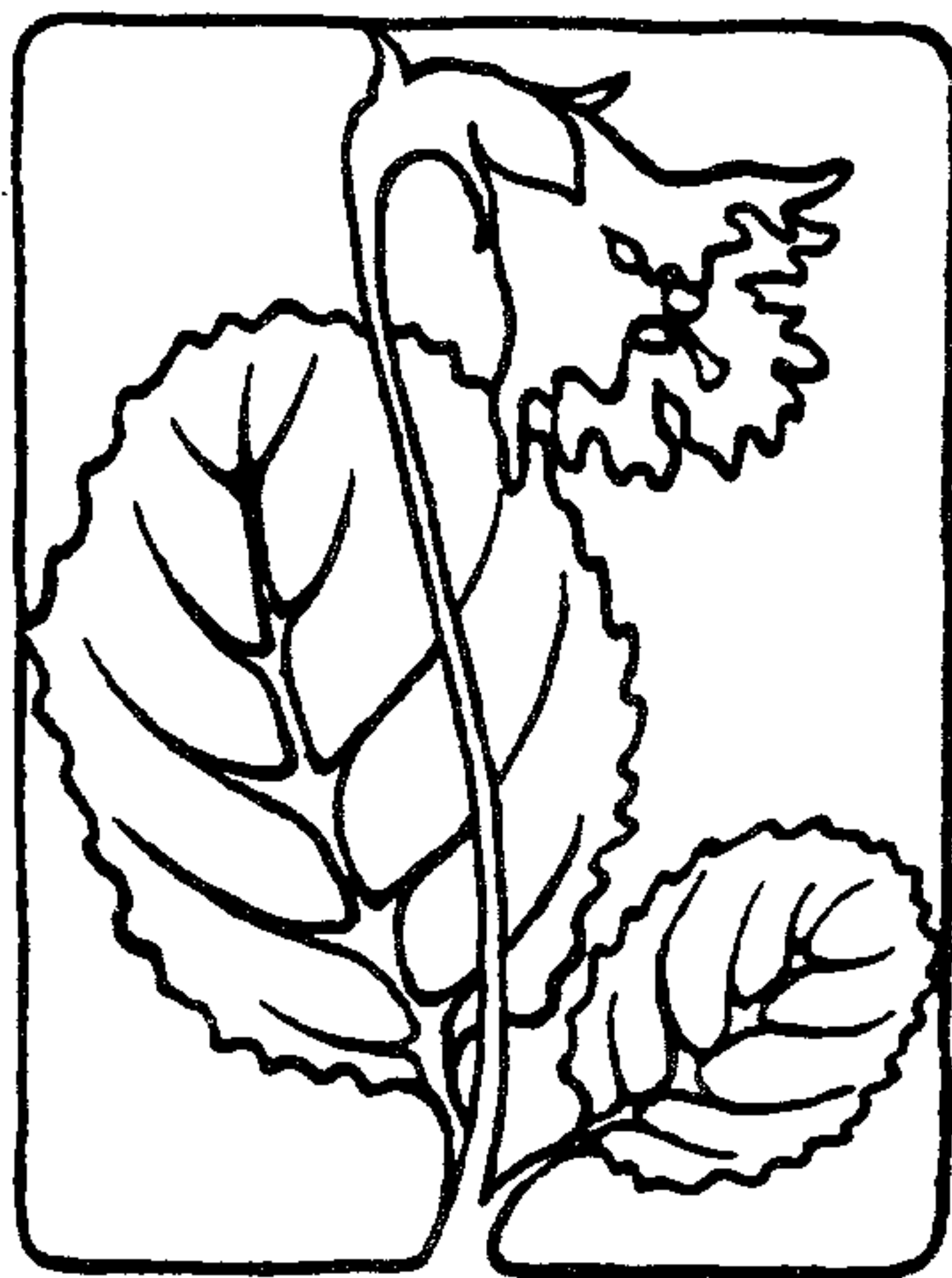


# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB

AUTUMN 1992



BUD PEARSON, Editor

Late summer has arrived with reds, golds, and browns of fall. Notice the deeper blue of the sky. Yes, we are surrounded by a world of beauty and live in a world of wonder.

The hot muggy days of July gave Ken and me an opportunity to read. Many new thoughts and approaches to the world about us gave new understanding and hope. Perhaps you, too, have read CHAOS, by John Gleick. From the San Francisco Chronicle, "Chaos records the birth of a new science. This science offers a way of seeing order and pattern where formerly only the random, the erratic, the unpredictable, in short, the chaotic, had been observed. Although highly mathematical in origin, chaos is a science of the everyday world, addressing questions every child has wondered about; how clouds form, how smoke rises, how water eddies in a stream, CHAOS is a history of discovery."

A book as provocative as THE SEA AROUND US, Rachel Carson's book of the fifties, is a recent book by Thomas Berry, THE DREAM OF THE EARTH. His theme is that, for most people, "...the emerging view of nature remains in a realm separate from the emotions and textures of daily experiences." He covers all aspects of our culture, the evolution of life, of education, religion, economics, patriarchy and of the healing of the earth, of the re-inhabiting of the earth, of the peace of the earth, and the hopefulness of the earth.

We must "...understand that the earth is a single community composed of all its geological, biological, and human components. Creativity is ever present. Without renewal in all life's functions. there would be no progress. "Hopefulness is found in the sequence of crisis moments through which the universe and, especially the planet Earth have passed from the beginning until now." Mr. Berry questions and gives thought provoking answers. I leave you with this thought; we must again learn to communicate with earth in an intimate manner by learning to live with the earth and becoming a part of it, for we are an integral part of it.

Bessie Sinish

Congratulations to Millie Blaha and Ann Ulinski, who were recognized by the National Heritage Foundation for their extensive work gaining state recognition of the Mud Creek Wetlands. This biologically diverse area contains rare plants and is a refuge for birds and animals.

We, members of the WCBC, are proud of your work and recognition.

Bessie Sinish

MEETING NOTICE: MUSHROOMS AND LICHENS

9:30 A.M., Friday September 11, 1992: The meeting will be at the PISGAH RANGER STATION - Presented by Dick Smith (704) 885 2530  
Meet at Laurel Park Shopping Mall at 9:00 A.M. and join others at the Ranger Station.

WE WELCOME NEW MEMBERS:

Rosalie B. Kilgore  
104 Finlay Brook Road  
Hendersonville, NC 28739  
Ph: 697 8081

Gerald and Lois McDonald  
795 Crooked Creek Road  
Hendersonville, NC 28739  
Ph: 697 9572

It is interesting to note the many trees, shrubs and plants not native to our area, which have been brought here from other places. One of these being the Ailanthus tree, Ailanthus altissima, or Tree of Heaven, a native of China, brought into this country in the late eighteenth century, now naturalized over much of the east. The Chinese name, Tree of Heaven, refers to the short time it takes for this tree to reach the sky and not to any Heavenly attributes it has. Far from it, it has become a nuisance tree, growing fast, spreading and crowding out more desirable trees. An ordinance passed in the District of Columbia in 1875 declared Ailanthus ownership a crime, and states that, "Ailanthus trees, the flowers of which produce offensive and noxious odors, are hereby declared injurious to health and any person maintaining such nuisance, who shall fail to abate same, shall be fined not less than five not more than ten dollars for every such offense." This ordinance is still on the books.

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**RECORDER'S REPORT**

by Erika S. Parmi

The weather has continued to be uncooperative causing several cancellation of field trips, - Big Butt, Soco Gap, and Bee Tree Gap. Craggy Gardens was substituted for Mt. Mitchell and we were treated to a nice display of rhododendron. It was good to see that the Rhododendron catawbiense at Craggy had recovered after several poor years.

Mud Creek at Patton Park was substituted for Jackson Park. There Millie Blaha introduced us to some unusual plants growing in the area; Ampelopsis cordata, a disjunct from the Piedmont, bittersweet nightshade Solanum ducamara, a rare woody vine which Radford shows as growing only in Ashe, Watauga, Buncombe, Henderson and Jackson Counties. Other plants identified were Discorea batatas, cinnamon vine, a wild yam vine which grows in scattered localities throughout North Carolina. Radford does not show it in Henderson County. A rare species of bittersweet found there was Celast-  
rus orbiculatus, and Berberis thunbergii, or barberry.

Along the Mud Creek boardwalk and path we saw some of the unusual trees in Henderson County, such as the butternut, Jugulans cinerea, silver maple, Acer saccharum, Tree of Heaven, Ailanthus altissima and catalpa, Catalpa bignonioides. We also saw lots of button bush, Cephalanthus occidentalis, which we are more accustomed to seeing in the Piedmont and coastal areas of North Carolina. There were several other plants which are rare, disjuncts or infrequent in our area.

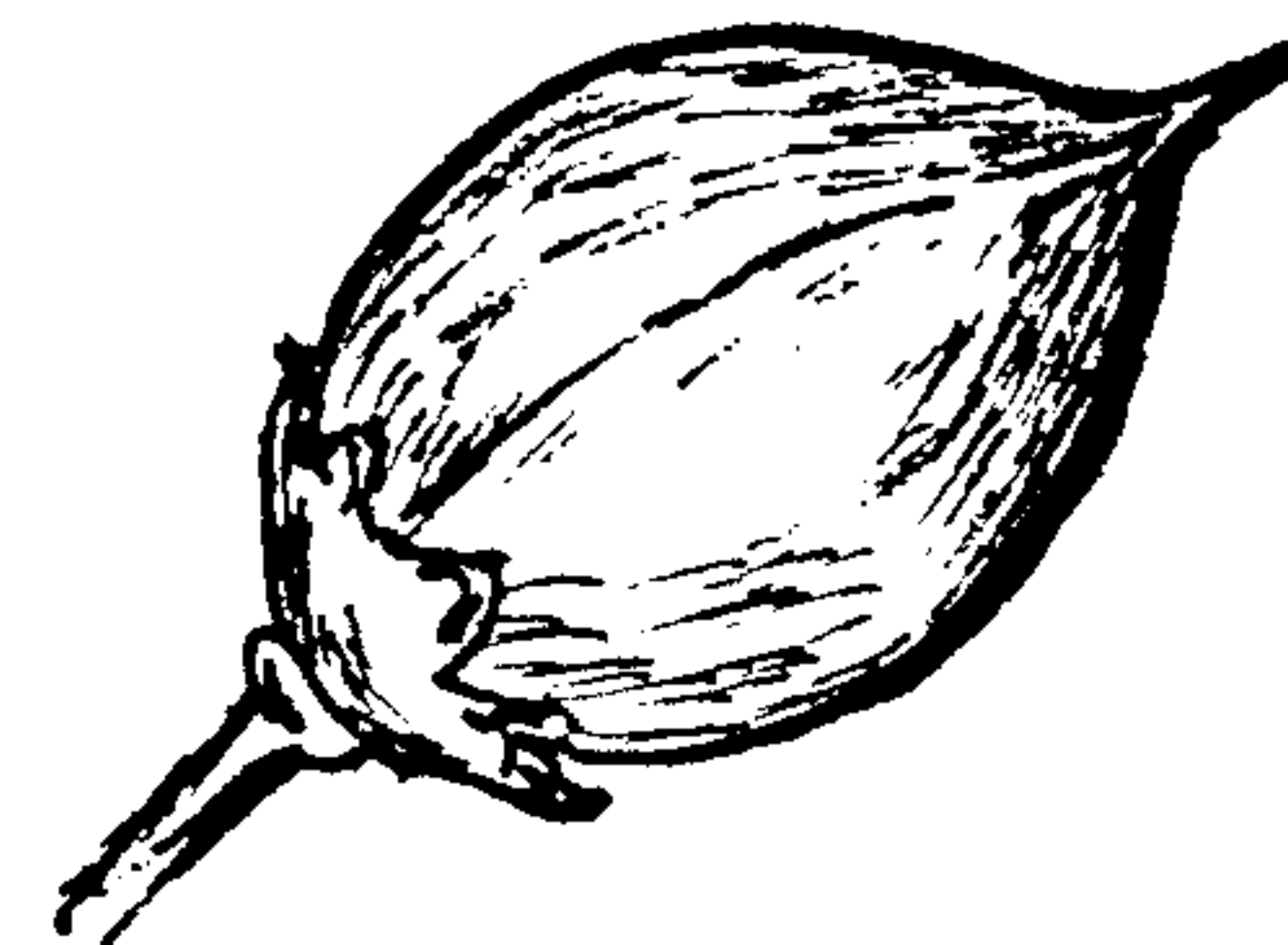
On July 10th Roan Mountain put on a good show for us, plant wise and weather wise. We even saw an "over-the-hill" display of Catawba rhododendrons at the gardens area. It is seldom that we find them still in blossom at this late date. We saw nice specimens in bloom, of the rare Gray's lily, Lilium grayii, Roan Mountain bluets, Hedyotis purpurea var. montana and Robbin's ragwort, Senecio robbinsii.

Last, but not least, we puzzled over the disappearance of the bunch-flower, Melanthium hybridum and featherbells, Stenanthium gramineum on the Haywood Gap and Frying Pan Gap trails. Was it the weather or some other natural or human interference? Their absence did not detract from the beauty of the fly poison, Amianthium muscaetoxicum covered slope of Haywood Gap. ....Erika S. Parmi, Recorder



A Chinese riding on Interstate 40 through the Pigeon River gorge in late April might think he was in the Yangtze River valley. On both sides spectacular flowering trees abound.

The Royal Paulownia, fittingly called the Princess Tree or the Empress Tree, is indigenous to China and Japan. The botanical name is Paulownia tomentosa. Relatively late in plant evolution, it was originally in the Bignoniaceae family but recent studies show the small embryo in the seed to be surrounded by copious albumin as is true throughout the Scrophulariaceae family. Paulownia is the only tree in a family that includes the monkey flower, mimulus, penstemon mullein, castilleja, turtlehead, fox glove, gerardia, and figwort. The signature use of the figworts knotty roots to treat the scofulous nodules of tuberculosis gave the name to this family, from the latin, scrofulae.



The blossoms of the Paulownia occur in the spring before the leaves. The flower buds were formed the previous summer and lay dormant, but

prominent, during the winter. The leaves are opposite on a long stem, 6 to 12 inches wide, entire or 3-lobed, green with densely wooly hair (tomentosa). They remain green until shed in the fall. The imperfect flowers are in axillary cymes or panicles one foot long. The individual flowers are 1.5 to 2 inches long, of vanilla fragrance, hairy on the outside, and of a blue-violet purple to almost white hue with darker spots and yellow lines inside; rare colors for a flowering tree. The calyx is 5-cleft. The corolla is funnelform with 5 spreading lobes, slightly curved, and



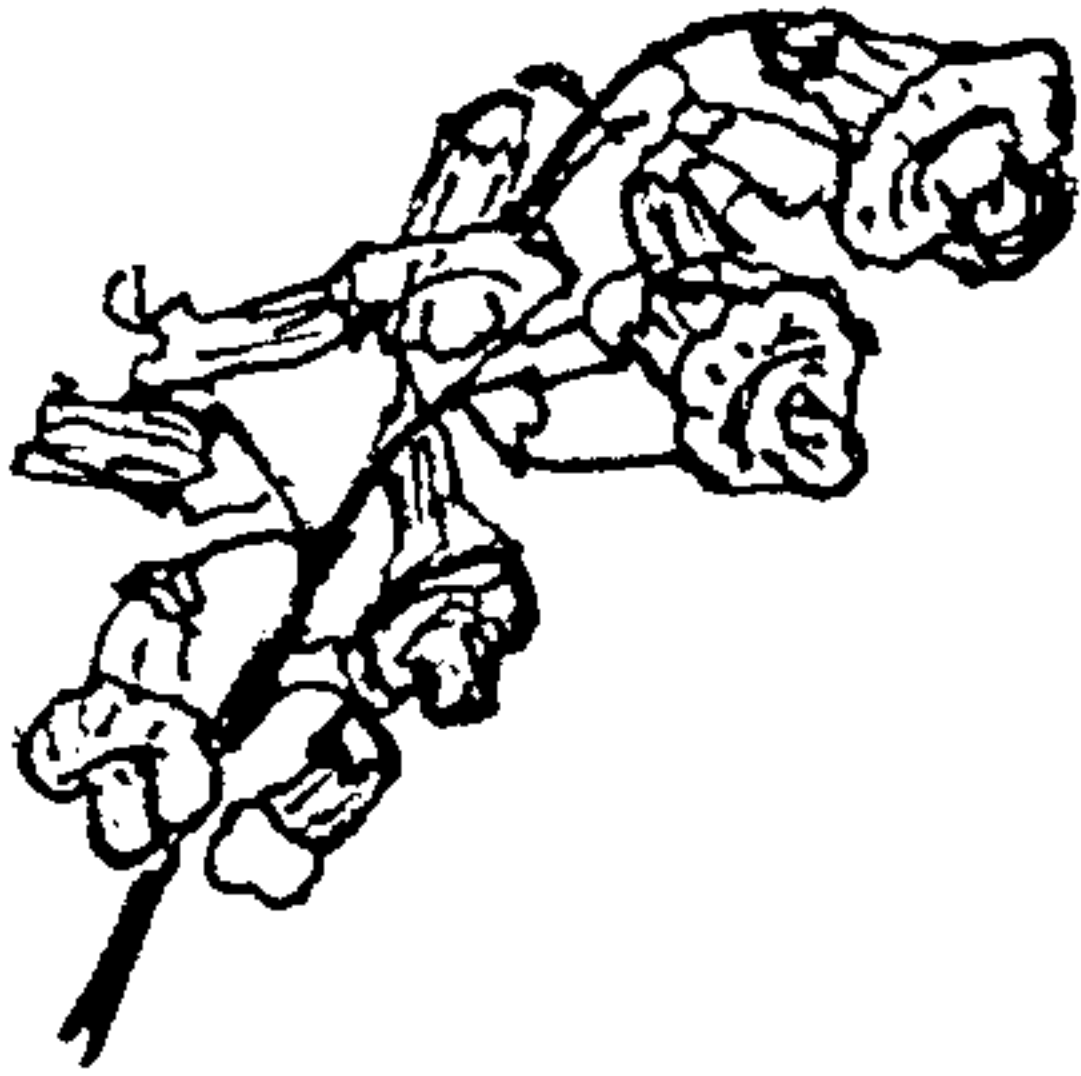
2-lipped. Stamens are four. The fruit is a 2-valved capsule one to two inches long, egg shaped, brown, and persists a long time. The seed pod has four compartments and contains about 2000 winged seeds. The rattling of the dry seed pods by winter winds gave Paulownia one of it's common names, "Rattle Box". The young tree has green relatively smooth bark becoming grayish brown with age. The pith is chambered. The wood is very light. Paulownia grows rapidly even in poor soil, and has few diseases. The mature tree may be 30 to 60 feet tall with a round crown producing a dense shade in the summer. Other native species and one mono-clonal variety exist, differing in height and floral and leaf coloring.

The Chinese name for Paulownia is "Tung"; the Japanese, "Kiri". Long venerated in China, the wood was used in Buddhist monasteries to make dishes, utensils, coffins, ridge poles, beams, and pillars of houses. Until this day all parts of the tree are used in folk medicine to treat bruises, fever, delirium, liver ailments, and greying hair. Some uses of the tree have become traditional. Because the wood is light, easily covered and decorated, and relatively fire proof, the father planted an Empress tree on the birth of a daughter and harvested it for a bridal chest on her marriage.

The shoes put on upon entering a Japanese home are made from Paulownia wood. Thin slices of the wood are applied to paper for fine envelopes and valuable book binders. The wood is also used in crates and jewelry boxes. Denser trees (five growth rings per inch and of wheat or beige color) are

used to make harps (kotos) and furniture. Only 1 or 2 percent of American Paulownia tree fit this category, yet, overall the Princess tree is the most valuable tree in our forests.

We owe the name and origin of the Princess tree to a remarkable plant collector, Philip Franz Siebold. He was a Bavarian ophthalmologist attached to the Dutch East India Company on the Japanese Island of Deshima from 1823 to 1830. He was a man of commanding presence, culture, strong political views, and a zeal for discovering plants. His ocular skills made the notably myopic Japanese relax their aversion to foreigners and allow him unrestricted rights to collect plants in their islands. Eventually he cajoled a nearsighted astronomer to give him a map of Nippon, a military secret at that time. This aided his collecting but unfortunately, on a



return voyage to Deshima, a storm wrecked the ship. The map was discovered and Japanese heads rolled. Due to Siebold's prestige he was only confined to the island for two years and then banished home in 1830. He took 458 plants to Holland. By 1859 the political situation had change and Siebold was sent back to Japan. Japan forgave and revered him as a Sensi or teacher. He lived in such splendor that the company finally recalled him. Political and social agitation, inflammatory writings, and imperious living antagonized the Dutch and Siebold

haughtily retired to Bavaria for his remaining years. He, with his co-physician and writer, J.C. Zuccarini, named the Princess tree after Anna Paulovna Romanov, wife of Prince Willem of the Netherlands. She was the daughter of the ill-fated Czar, Paul I of Russia and, at least nominally, the granddaughter of Catherine the Great.

It is of interest here to compare the Princess tree to a native tree in the Bignonia family that has obvious similarities. The Catalpa tree blooms later and with the leaves. The flower have slightly smaller panicles and are chiefly white with yellow lines and purple spots. The leaves ar darker green, less coarse, and have only five hairs. The seed capsule is like a cigar; not an egg. Only 2 fertile stamens are present. The pith is continuous.

In spite of its imperial beauty, the Paulownia tomentosa is not a tree for everyone. The litter of its messy leaves and twigs and the persistance of its overwhelming brown seed pods are definitely in the minus column. Yet who can mind such high entertainment bills when one has consorted with such a regal Russian or Oriental lady?

NOTE: Royal Paulownia was first discovered growing in Western North Carolina in the late 1800's along the Pacolet River gorge in Polk County by Giles William Pearson, father of member Millie Pearson.

#### LETTER TO THE EDITOR

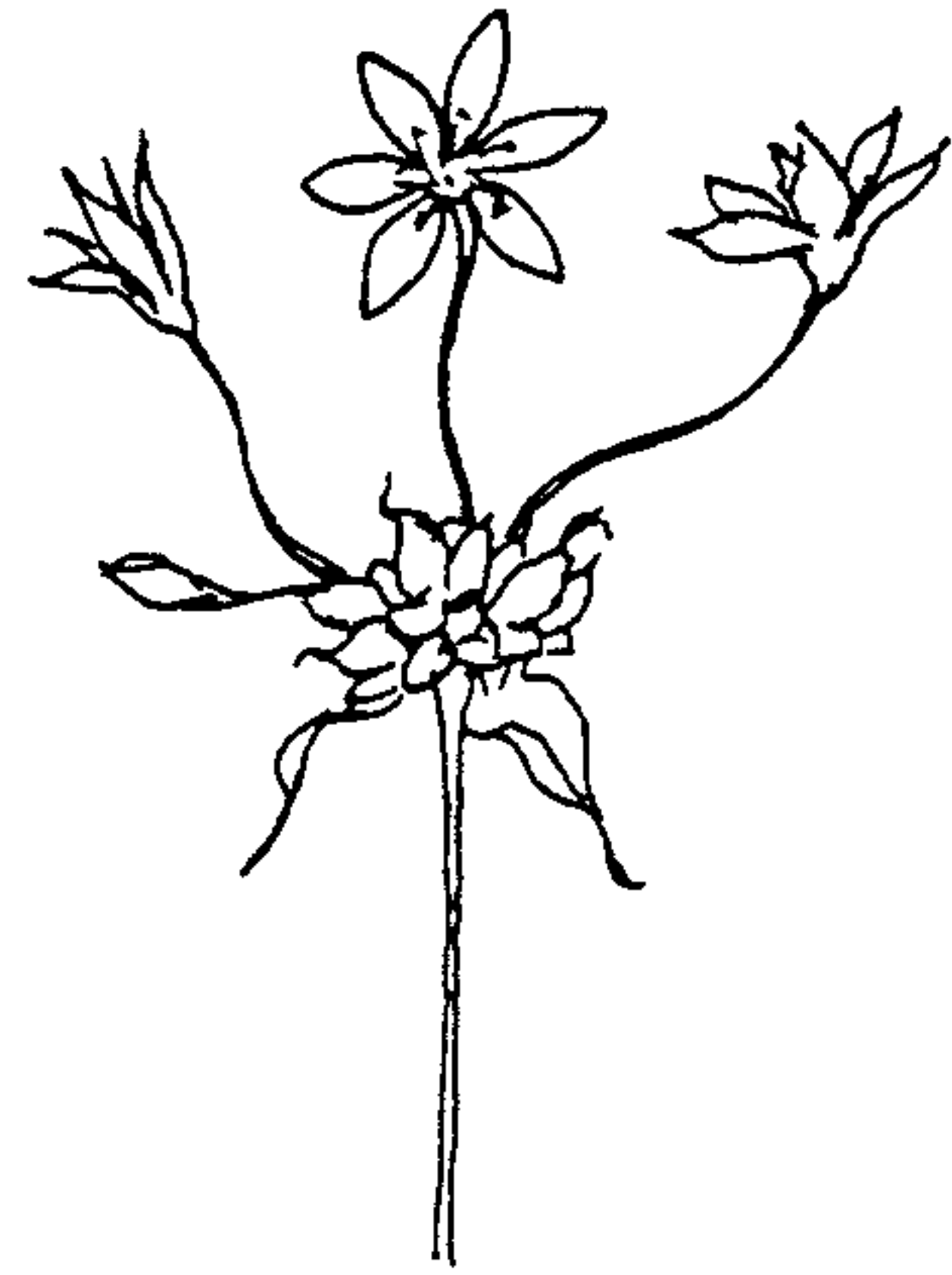
In your last issue a writer asked if Poison Ivy, Rhus radicans, had any worthwhile purpose? It does, or, it did. Back in the 18th Century, British and French doctors heard about poison ivy from the colonists, who reported that the Indians used it as a medicine. They used it to keep wounds open and to cure ring worm. The European doctors used it to treat dermatitis, "Paralytic Affections and other Diseases of great Debility". While the allergic reaction was somewhat debilitating, it did cure the ailment for which it was intended. It has apparently fallen out of use, replaced by more expensive modern cures. .... Louis Pasteure



# LOOK AGAIN !

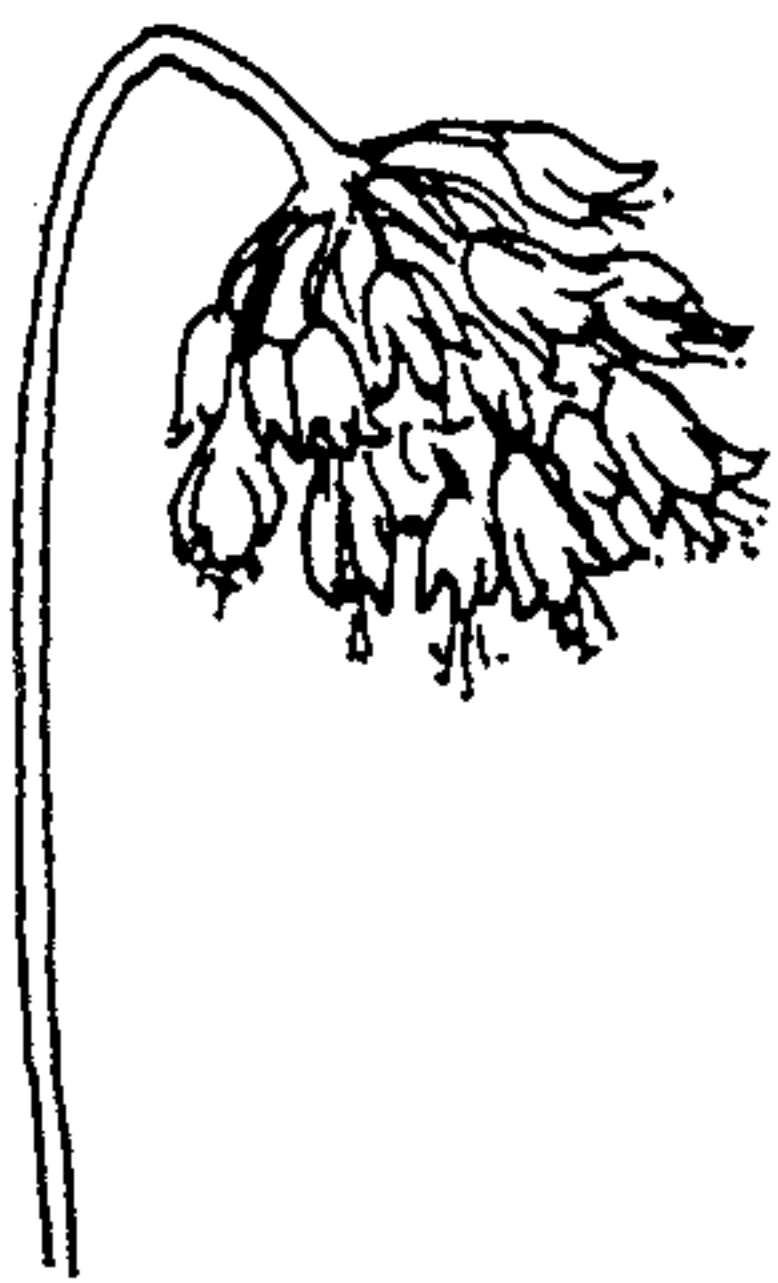
Of all the herbaceous plants in the Lily Family, only the wild Onions (Alliums) seem to have earned our disapproval. But even this is attributable to a single species--the alien Allium vineale, or Field Garlic, which has become an obnoxious lawn weed.

The hollow cylindric (rather than flat) leaves of Field Garlic serve to separate it from our native species, which while sharing the distinctive onion odor are interesting, useful, and--like many other family members--have pretty flowers when seen at close range. Take the true Wild Onion (A. canadense) for example: Its umbels may contain only bulblets, but more often these are mixed with delicate, long-stalked pink or white flowers with widely spreading tepals, measuring one-half inch across. It will be found in open woods and fields, blooming in spring and early summer.

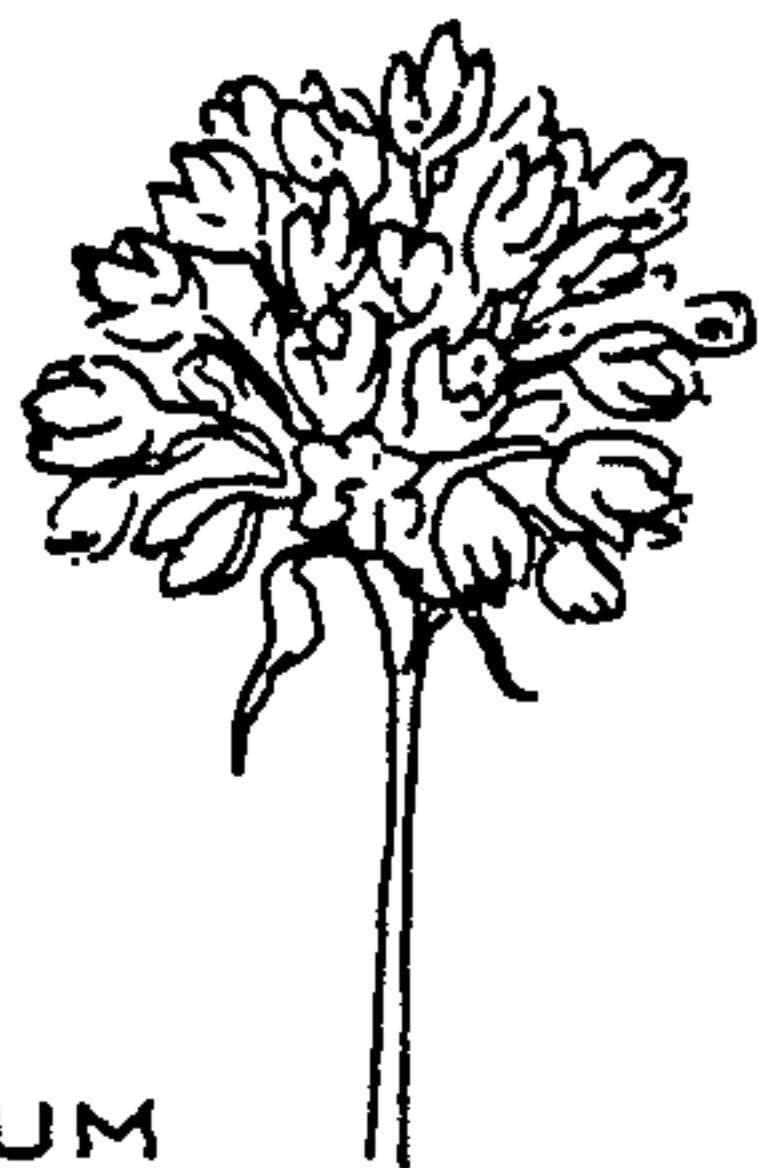


A. CANADENSE

This is followed by Nodding Onion, A. cernuum. In this the umbel consists wholly of flowers, which usually are an attractive purplish pink, with conspicuously protruding stamens. A curious crook in the flower stalk just below the inflorescence causes it to hang downward.



A. CERNUUM



A. TRICOCCUM

In spring, the broad strap-shaped leaves of A. tricoccum tell us where Ramps, or Wild Leeks, can be dug, but the flowers do not appear until summer, when the foliage has disappeared. The narrowly bell-shaped flowers are white or cream-colored, and are crowded into a rounded umbel atop a naked stalk.

*Dick Smith*

Chicory blue is a bold and distinctive blue color. It isn't delicate and it doesn't match the color of the sky as someone poetically wrote. But it is a beautiful flower found decorating our highways throughout the summer. If you have driven around the northeastern United States much in the summer time, you must be impressed by the chicory along the shoulders and banks of the highways.

One of Susan Tyler Hitchcock's essays, in her book *GATHER YE WILD THINGS*, is about chicory, *Chichorium intybus*. She tells about the plant and its uses.

In Europe, chicory is cultivated, both for greens and hardy roots.



Here, in the United States, one occasionally finds cultivated chicory in a grocery, or chicory seeds for sale in a catalog. The seeds will produce a plumper plant than those growing in the fields and on roadsides, but will be similar in taste and nutrients to its wild relation. Several coffee companies enrich their morning beverage with ground roasted chicory root. Ironically, much if not all of the chicory now added to American coffee brands has been imported from European chicory growers. With all the blue that lines our highways in the summer, you would think we could harvest our own.

A relative of the dandelion (both in the Composite family), chicory sends down a similarly long, thick root to tap minerals from deep within the soil. It sends up a flower stalk perennially. Greens should be gathered early in the growing season, before any stalk appears, and can be cooked or eaten raw

for salad. Roots should be gathered late, after the flowers have died.

When you gather chicory roots, go prepared for serious digging. They often grow in rocky soil and have roots a foot or more deep. To roast the roots, they should be cut into pieces 1 or 2 inches long and roasted in an oven that is no more than 300 degrees F. The roasting should be watched so that the roots brown but do not char. The roasted root sections can be ground in a blender or coffee grinder, if you have one.

The book, *GATHER YE WILD THINGS*, would make a nice gift. It has 52 essays about plants and their uses. The essays are arranged in seasonal sequence, one for each week of the year. Illustrations by G.B. McIntosh are commendable. Nice book for the coffee table or "short interval" reading.

S H O R T I A

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