Native Plants for Georgia Part III: Wildflowers

For generations, long before there was a nursery industry, people planted and enjoyed wildflowers. They harvested seeds, cuttings and plants from the wild, experimented with various propagation techniques and incorporated their favorite plants into their landscapes. Many of these plants were valued not only for their ornamental qualities but also for their culinary or medicinal uses. Those that were proven performers and adapted well to domestication became “pass along” plants that were shared with friends, relatives and neighbors.

As the nursery industry evolved in the 1800s, exotic plants were imported from foreign lands. Soon native plants became diluted with exotic plants in the product mix. The buying public generally became more interested in the dazzling qualities of new plants than in whether plants were native or imported from another country. As a result, approximately 80 percent of the plants in the nursery trade today are non-native exotics.

Today, there is renewed interest in “going native” and restoring diversity to our landscapes by planting native plants. The reasons for this are many and varied. Planting a native plant lends a historical sense of pride to a gardener who grows a plant that early pioneers or even Native American Indians may have planted. Furthermore, regionally-adapted native plants have developed a natural resistance to pests and a tolerance to drought, ice storms and other environmental extremes common to the area.

Some native plants provide food or shelter for wildlife and create “watchable wildlife habitats.” In his book Bringing Nature Home, Douglas Tallamy explains “the unbreakable link between native plant species and native wildlife,” especially the native insect populations that form the broad base of the food chain. “When native plants disappear or are replaced by exotic species, native insects disappear, thereby impoverishing the food sources for birds and other animals,” he says. The loss or decline of native plant populations through urban development and habitat destruction or by encroachment from invasive exotic species changes the whole biology and balance of an ecosystem.

What are Native Wildflowers?

The term “wildflower” in this publication is a general term used to define both annual and perennial native herbaceous plants with showy flowers that have evolved with an ecosystem and grow naturally without either direct or indirect human intervention. Although native grasses and sedges are included in this definition, they are described separately in Part IV of this native plant publication series.

Many native plant enthusiasts question whether improved cultivars of native wildflowers resulting from hybrid crosses of two native species are still native plants. In the book Armitage’s Native Plants for North American Gardens, Allan Armitage humorously refers to these plants as “nativars.” In this publication, cultivars of native plants will be mentioned when they have qualities different from those of the native species and when they are widely available in the nursery trade.

Growing Wildflowers Successfully

To grow wildflowers successfully, one must carefully simulate their native growing environments, giving special consideration to sunlight requirements, soil types and moisture levels. Some wildflowers are “generalists” and grow well in a variety of habitats, while others require very specific growing conditions. Some prefer wet conditions and are best used in bog gardens or on the edges of ponds or streams. Many prefer dry, sunny sites and adapt well to perennial borders, cottage gardens or meadows. Still others prefer dry woodland settings with filtered shade, while some like shaded woodlands adjacent to streams or seepage areas where soils are moist and high in organic matter.

A few wildflowers are aggressive and spread by creeping underground stems, called rhizomes, or by aboveground runners, called stolons. Others spread by dispersing seeds and establishing new colonies of seedling plants. These aggressive plants are best planted either in wildflower meadows where they can freely compete with other aggressive plants or in confined areas where their spread can be managed.

Many wildflowers are not self-fertile; therefore, to produce fertile seeds, several seedlings need to be planted in close proximity in order to cross. If plants are propagated vegetatively from the same parent, the seeds produced usually will be sterile.

Before planting wildflowers, consider whether they are cool-season or warm-season plants. Cool-season wildflowers, also called spring ephemerals, like Trillium, Wild Ginger, Bloodroot and May-apple, bloom in late winter or spring. In their native habitat, these plants are found on the floor of deciduous hardwood forests where changing light patterns govern their life cycle. They grow rapidly and flower from March to May before the leaves on the canopy trees are fully expanded and when light levels reaching the forest floor are highest. Then, as the leaves of the canopy trees mature and light levels at ground level decrease, cool-season wildflowers go dormant or disappear until the following spring. On the other hand, warm-season wildflowers like *Baptisia*, Partridge Pea, Blazing Star and Goldenrod produce their strongest growth when night-time temperatures reach 70 degrees Fahrenheit. They bloom in summer and fall then go dormant if they are a perennial or re-seed and die if they are an annual. In their native habitat, these plants are found along forest edges and in meadows and will not grow well in dense shade. By planting a combination of cool-season and warm-season plants or seeds, gardeners can attain at least nine months of color.

It is a common misconception that wildflowers are maintenance-free plants when grown in garden habitats. Whenever a plant’s environment is altered by taking it from its native habitat to a cultivated landscape, it will require maintenance, particularly during the first year or two while it is getting established and adapting to a new location. Some wildflowers are pruned back after flowering to encourage more compact growth or repeat flowering. Others that spread aggressively from seed are pruned after flowering to prevent seed production. Wildflowers used for roadside beautification are often mowed late in the season to scatter seeds that will germinate and produce new plants for motorists to enjoy the following year.

Obtaining Plants and Learning about Native Wildflowers

Always obtain wildflower plants or seeds from reputable sources. Most of the common wildflowers or their cultivars can be found in nurseries, garden centers, mail-order catalogs or their online equivalents. There are several Native Plant Societies throughout the Southeast, and

most have an annual native plant sale.

Beware of “Meadows in a Can” or other wildflower seed mixes that are formulated for other regions of the country, such as the Pacific Northwest or the Northeast. Many of these mixes contain non-native species as well as species not well suited for the heat and humidity of the Southeast. For best results, look for seed mixes formulated for the Southeast.

Transplanting wildflowers from their native habitats to cultivated landscapes is discouraged. It is prohibited if the plants are rare or endangered, or if they are located on land owned by the state or federal government. It also is illegal to collect plants from private land without permission from the landowner. Some organizations, such as the Georgia Plant Conservation Alliance, the Georgia Native Plant Society and the Nature Conservancy, conduct organized rescues of native plants that are threatened by construction, provided permission is given by the landowner.

The Georgia Native Plant Society is an active statewide organization that offers seminars and workshops throughout the year (see www.gnps.org). The State Botanical Garden of Georgia offers an 80-hour certificate program on native plants that includes a series of courses through which one can earn a Certificate of Native Plants (botgarden.uga.edu). The reference list at the end of this publication cites both websites and books that provide excellent information for wildflower enthusiasts.

Guide to Plant Descriptions

This publication describes an assortment of wildflowers worthy of landscape culture. They are arranged alphabetically by botanical name. Most of them are readily available in the nursery trade, but a few may require some searching of catalogs or websites or visits to specialty plant growers. Endangered, threatened or rare plant species listed in Protected Plants of Georgia, a publication of the Georgia Department of Natural Resources, are not included in this publication. Other plants that have very specific growing requirements that cannot easily be created or maintained in landscapes were also omitted.The appendix contains a *Guide for Selecting Wildflowers* described in this publication. It is based on various criteria, such as plant height, flower color, time of bloom and light requirement. Readers should find this table useful for selecting the right plants for specific locations in their landscapes.

Information on each plant is provided according to the following criteria:

- Common Name(s) / Botanical Name / Family
- Life Cycle
- Characteristics
- Cultural Requirements
- Landscape Uses
- Size
- Hardiness Zones
- Habitat
- Native To
- Propagation
- Comments

Common Name(s) / Botanical Name / Family: Shown here are the generally accepted

common names used by respected botanical authorities. For this publication, *Flora of Southern and Mid-Atlantic States* by Alan S. Weakley, North Carolina Herbarium, was used as the definitive source for botanical names. The family name is given as a point of information since some unifying traits are common to plants in the same family.

Life Cycle: This section explains whether the plant is an annual, biennial or perennial. An annual flowers, fruits and dies in one growing season. A biennial grows vegetatively the first year, then flowers, fruits and dies the second year. A perennial usually flowers and fruits each year, and lives for several years. Some plants may be annuals in some areas of Georgia and perennials in other areas of the state. A few plants perceived by gardeners as perennials may actually be re-seeding annuals.

Characteristics: In this section, the authors provide a botanical description of the plant, such as growth habit, leaf shape, leaf arrangement, flower form, time of flowering, flower size and color, and the type of root or fruit. The following figures illustrate common terms used to describe the plants, including common leaf shapes, common leaf arrangements, common types of inflorescences (arrangement of flowers on flowering stalks) and parts of flowers. A glossary at the end of this publication provides definitions of the botanical terms used to describe the plants.

Cultural Requirements: A description of the type of environment the plant needs to thrive, including the light level, soil type and soil conditions, is provided. Other information useful in managing the plant, such as pruning after flowering to encourage repeat bloom or to prevent self-seeding, is included where appropriate.

Landscape Uses: This section suggests the type(s) of landscapes or environmental conditions appropriate for the plant. To grow native wildflowers successfully, it is important to simulate their native habitat as closely as possible.

Size: The expected mature height and/or spread of the plant under ideal cultural conditions are listed here.

Hardiness Zones: Hardiness zones are listed for Georgia. They are an estimate of the plant's winter hardiness according to established U.S. Department of Agriculture hardiness zones. Most native plants are hardy throughout the state; however, nature does not always cooperate with the guidelines humans develop. Variations in microclimates may extend the growing range north or south of the zone listed. The USDA plant hardiness zones in Georgia are shown in Figure 5.

Habitat: The environment(s) in which the plant is found in the wild.

Native To: A general description of the region within the continental U.S. where the plant is presently found in its native habitat.

Propagation: The propagation technique(s) commonly used to reproduce the plant are described.

Comments: Additional information about the plant that the reader may find interesting is provided here, such as the plant's attractiveness to wildlife or other cultivars of the plant available in the nursery trade

Doll’s Eyes, White Baneberry / *Actaea pachypoda* Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: Branched stems bear two or three large trifoliate toothed leaves. Tiny white flowers are borne in terminal clusters in May or June. Flower stalks thicken after bloom and turn red. Flowers are followed by dense clusters of white pea-size fruit having a distinctive purple spot on their stigmatic end, causing them to resemble the eyes of a china doll. Berry clusters persist into fall and provide ornamental interest until frost.

Cultural Requirements: Plant Doll’s Eyes in moist, organic, well-drained soils and partial shade to full shade. It does not like drought or wet feet. It will self-seed and spread when given the right growing conditions.

Landscape Uses: Use Doll’s Eyes in shaded gardens.

Size: 1 to 3 feet tall and 2 to 3 feet wide

Hardiness Zones: All of Georgia

Habitat: North-facing slopes of nutrient-rich forests

Native To: Maine to Florida, west to Louisiana, north to Nebraska and Minnesota

Propagation: Seed or division
Seed: Collect seeds in August. Remove pulp and sow outdoors in flats or ground beds. Germination should occur the following spring. Division: Root division can be done in spring or fall.

Comments: All parts of this plant are poisonous when ingested, so avoid planting this plant in areas frequented by children.

Images: Page 51

Black Cohosh, Black Bugbane / *Actaea racemosa* (syn. *Cimicifuga racemosa*) Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: Slender stems bear pinnately compound leaflets with three-lobed terminal leaflets (see Figure 2). Leaflets are ovate, deeply cut and finely-toothed along their margins. In April or May, racemes 3 to 6 inches long appear at the tips of the branches bearing small, white, fragrant flowers lasting two to three weeks. Seeds are borne in capsules that make a rattling sound when shaken.

Cultural Requirements: Black Cohosh prefers moist, well-drained, humus-enriched soil and partial shade or full shade. Cut back plants in late winter to make way for newspring growth.

Landscape Uses: Use Black Cohosh to brighten shady areas in the landscape, such as butterfly gardens and perennial borders.

Size: 4 to 6 feet tall and 2 to 4 feet wide

Hardiness Zones: All of Georgia

Habitat: Rich hardwood forests

Native To: Massachusetts, west to Indiana, south to Mississippi, east to Georgia

Propagation: Seed or division
Seed: Harvest and plant seeds outside in fall. It may take two years for seeds to germinate and four years to produce a flowering plant from seed.
Division: Dig and divide roots in fall or spring.

Comments: Black Cohosh is the food source for larvae of the Spring Azure butterfly. The foliage has a pungent odor that repels other insects. Flower nectar attracts several other butterflies. The root has been used medicinally for arthritis, menopausal symptoms and other ailments.

Images: Page 51

Common White Snakeroot / *Ageratina altissima* (syn. *Eupatorium rugosum*) Family: Aster / *Asteraceae*

Life Cycle: Perennial

Characteristics: Leaves are opposite, elliptic to oval in shape, 3 to 6 inches long, with toothed margins and pointed tips. Small, fluffy, bright white flower heads in loose, flat-topped clusters appear on short stalks from late summer to frost. Fruit are small, dry, hairless, seed-like achenes surrounded by white bristles.

Cultural Requirements: This plant prefers sun to light shade and moist loamy soils, but it will adapt to dry soils. Deadheading will encourage repeat flowering and prevent unwanted re-seeding.

Landscape Uses: Use Common White Snakeroot in woodland edges.

Size: 2 to 3 feet tall

Hardiness Zones: All of Georgia

Habitat: Open forests, meadows, and under power lines and in rights-of-ways

Native To: New England, south to Georgia, west to Louisiana, north to Wisconsin

Propagation: Seed, cuttings or division

Seed: Collect seeds from September to October and store them dry at 40 °F for one month, then plant.
Cuttings: Stem-tip cuttings can be taken in April or May. Division: Divide plants in fall or spring.

Comments: Common White Snakeroot can spread aggressively by seeds and rhizomes. Native Americans used an extract from the roots to treat snakebites, hence the common name.

Images: Page 51

Fly Poison / Amianthium muscitoxicum Family: Bunchflower / Melanthiaceae

Life Cycle: Perennial

Characteristics: Basal leaves are narrow and elongated, 12 to 24 inches long. They spread outward and arch downward. Leafless flowering stalks resemble those of hyacinths, rising 1 to 2 feet above the foliage and producing dense cylindrical clusters of creamy white flowers that fade to bronze-green in early summer. The flowers are tiny, approximately 1/4 inch across, with six reflexed tepals and anthers that rise above the stigma. A sticky substance coats the flowers, causing them to glisten. Seeds are borne in capsules.

Cultural Requirements: This plant prefers moist, slightly acid soil and one to two hours of direct morning sunlight followed by afternoon shade.

Landscape Uses: Plant Fly Poison in moist perennial borders or wildflower gardens in partial shade. Plant them in groups for maximum show.

Size: 1 to 2 feet tall

Hardiness Zones: All of Georgia

Habitat: Low pinelands, savannahs, woodlands or moist meadows

Native To: New York to Florida, west to Louisiana, north to Oklahoma and Missouri

Propagation: Seed or division
Seed: Plant seeds when ripe in spring. No pretreatment is required.
Division: Root division can be done in fall or spring.

Comments: All parts of this plant contain toxic alkaloids and are poisonous to livestock and humans. Avoid using it where young children play. Wear gloves when dividing plants. Early settlers crushed the bulbs and mixed them with sugar to prepare a fly poison, hence the common name.

Images: Page 52

Fringed Blue Star / *Amsonia ciliata* Family: Dogbane / *Apocynaceae*

Life Cycle: Perennial

Characteristics: Leaves are alternate, linear or lance-shaped, four to 15 times longer than they are wide. They are sessile (attached directly to the stem, without a petiole) and are closely spaced up the stem. They turn golden yellow in fall. Pale blue flowers, 1?2 inch long, are star-shaped with five lobes and white centers. Flowers appear in loose clusters on stem tips from April to early May. Stems are pubescent. Slender seed pods, 4 to 7 inches long, are borne in pairs. They split along one side, releasing seeds. All plants in the genus *Amsonia* have milky sap.

Cultural Requirements: Fringed Blue Star is easy to grow in well-drained soil and full sun to partial shade. It requires some water during dry periods. Cut it back after flowering to maintain a bushy, erect growth form.

Landscape Uses: Fringed Blue Star is a good plant for perennial borders, rock gardens, cottage gardens or woodlands. It is showier when planted in groups.

Size: 2 to 3 feet tall

Hardiness Zones: All of Georgia

Habitat: Dry, sandy, rocky areas and sand hills

Native To: Florida into Texas, north to Kansas and Indiana, east to Virginia. It is primarily a plant of the Coastal Plain.

Propagation: Seed or cuttings
Seed: Collect seeds when the capsules turn tan and the seeds turn brown. Place them in hot water and let them soak overnight before planting. This removes a germination inhibitor from the seed.
Cuttings: Stem cuttings can be taken in May or June. Treat them with a rooting hormone to enhance rooting.

Comments: Butterflies are attracted to the flowers. A variety called Georgia Pancake or Threadleaf Sandhills Blue Star, *Amsonia ciliatia* var. *tenuifolia*, also can be found in the Coastal Plain.

Images: Page 52

Wideleaf Blue Star, Eastern Blue Star / *Amsonia tabernaemontana*
Family: Dogbane / *Apocynaceae*

Life Cycle: Perennial

Characteristics: This is a compact clump-forming plant with narrow, lustrous green leaves that radiate around the stem. Leaf shape is variable, ranging from ovate to lanceolate. Leaves turn yellow-gold in fall. From spring to early summer, blue, star-shaped flowers, 1?2 inch across, are borne in loose clusters at stem tips. The petals have fine hairs along their margins. The flowers

are followed by long narrow seed pods that are attractive and provide ornamental value to the winter landscape.

Cultural Requirements: Wideleaf Blue Star is easy to grow in well-drained soil and full sun to partial shade. It may grow leggy in shaded areas. It is drought tolerant once established. Cut back plants after flowering to encourage compact growth. Deer do not like the milky sap.

Landscape Uses: This is a low-maintenance perennial for perennial borders or containers.

Size: 2 to 3 feet tall and 2 to 3 feet wide

Hardiness Zones: All of Georgia

Habitat: Rich hardwood forests, floodplains and stream banks

Native To: Massachusetts, west to Kansas, south to Texas, east to Florida

Propagation: Seed or cuttings
Seed: Collect seeds when the capsule turns tan and the seeds turn brown. Place them in hot water and let them soak overnight to remove a germination inhibitor before planting.
Cuttings: Stem cuttings can be taken in May or June. Treat them with a rooting hormone to enhance rooting.

Comments: Once planted, Wideleaf Blue Star tends to thrive on neglect. A similar species, *A. hubrichtii*, Arkansas Blue Star, grows 3 feet tall and wide. It was a 2009 Georgia Gold Medal winner and is a valued landscape plant; however, because it is native to Oklahoma and Arkansas and is not native to Georgia, it is not described in this publication. For a description of this plant, see www.georgiagoldmedal-plants.org

Images: Page 52

Wood Anemone / *Anemone quinquefolia* Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: A slender stalk, 4 to 8 inches tall, has basal leaves and a terminal whorl of three leaflets, each divided into three to five narrow, sharply toothed segments. Basal leaves disappear at flowering. In April/May, a single white or pink flower rises above the terminal leaf whorl. The flowers are 1 inch across and consist of five to seven petal-like sepals. The plant spreads by rhizomes to colonize an area, but it is not aggressive.

Cultural Requirements: This plant likes moist, organic soil and partial shade.

Landscape Uses: Plant Wood Anemone adjacent to paths in moist woodlands with filtered shade.

Size: 4 to 9 inches

Hardiness Zones: All of Georgia

Habitat: Moist hardwood forests, meadows and fields

Native To: Maine, south to Georgia, west to Mississippi, north to the Dakotas

Propagation: Seed or division
Seed: Collect seeds in spring and plant them in outdoor flats right away. They require warm and cold stratification to germinate, so don't expect seedlings until the following spring. It takes three to four years for seedlings to flower. Division: Divide the rhizome in fall.

Comments: All parts of the plant are poisonous.

Images: Page 53

Tall Thimbleweed / *Anemone virginiana* Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: Multiple erect stems rise 2 feet. A whorl of three-lobed leaves appears halfway up the stem. In April and May, a solitary white flower, 1 inch across, is borne at the top of each stem. The flowers consist of five white petal-like sepals with a thimble-like center mound of yellow stamens. Flowers give way to thimble-shaped seed heads that remain on the plant well into winter. The fluffy seed heads are a nice ornamental feature in fall.

Cultural Requirements: Tall Thimbleweed prefers moist organic soils and sun or partial shade. It will adapt to dry sites.

Landscape Uses: Use Tall Thimbleweed in open woodlands or wildflower meadows.

Size: 1 to 2 feet tall

Hardiness Zones: All of Georgia

Habitat: Moist field and woodland edges, prairies and meadows

Native To: Maine to Florida, west to Louisiana, north to the Dakotas, Wyoming and Colorado

Propagation: Seed or division
Seed: Collect seeds in September when the seed heads become fluffy. Stratify them at 40 °F for two months before planting. They should germinate in two to three weeks at 70 °F.
Division: Divide plants when they are dormant.

Comments: All parts of the plant are poisonous when ingested.

Images: Page 53

Rue-anemone / *Anemonella thalictroides* (syn. *Thalictrum thalictroides*) Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: The plant produces a whorl of basal leaves, each having three lobes. In March or April, several flowering stems, approximately 9 inches long, emerge from each plant. Each stem produces a solitary terminal flower above a whorl of leaves. Flowers are white, 1 to 1 1?2 inches wide and comprised of five to 10 petal-like sepals surrounding greenish-yellow stamens. The root is tuberous.

Cultural Requirements: Rue-anemone requires shade or partial shade and consistently moist, sandy soils. It does not like clay soils.

Landscape Uses: Use Rue-anemone in shaded wildflower gardens and shaded woodlands.

Size: 6 to 9 inches tall

Hardiness Zones: All of Georgia

Habitat: Rich hardwood forests and stream banks

Native To: Florida to Oklahoma, north to Minnesota, east to Maine

Propagation: Seed or division
Seed: Collect the pale green seeds in May and sow them immediately. No pretreatment is required.
Division: Divide the tuberous root in fall or spring.

Comments: All parts of Rue-anemone are poisonous when ingested.

Images: Page 53

Hairy Angelica / *Angelica venenosa* Family: Carrot / *Apiaceae*

Life Cycle: Perennial

Characteristics: Hairy Angelica is a member of the parsley/carrot family and resembles these plants. The leaves have toothed margins, winged petioles and are divided into three leaflets. The upper part of the stem as well as flower stems (peduncles) and leaf stems (pedicels) are covered with fine hairs. Flowers are snow white and borne in compound umbels from June through July. Flowers and leaves are aromatic. Fruit are round, hairy and flat with three ridges on each side. The plant has a taproot.

Cultural Requirements: Plant Hairy Angelica in sunny or partially shaded moist rocky areas. The plant dies down and disappears in winter. Self-seeding occurs, and it may produce many plants.

Landscape Uses: This plant looks nice when planted in groups of three or more plants in wildflower gardens, rock gardens, damp ditches or meadows.

Size: 3 to 4 feet tall

Hardiness Zones: All of Georgia

Habitat: Moist rocky forests, damp ditches and sand hills

Native To: Florida to Mississippi, north to Oklahoma and Michigan, east to Connecticut

Propagation: Seed or cuttings
Seed: Collect seeds in September or October and give them dry, cold stratification (40 °F) until late December, then plant them in outdoor beds or flats. Do not cover them because they need light to germinate. They should germinate in late winter to early spring.
Cuttings: Take root cuttings in fall or spring.

Comments: Hairy Angelica holds up well as a cut flower. It is often devoured by the caterpillar of the Black Swallow-tail butterfly. Deer also like this plant.

Images: Page 54

Plantain Pussytoes / Antennaria plantaginifolia Family: Aster / Asteraceae

Life Cycle: Perennial

Characteristics: Basal leaves are spoon-shaped (narrow toward the base and widening to a broad, rounded tip). They are 3 inches long, 3?4 inch wide and woolly. Stem leaves are wider and more rounded than the basal leaves. Plants are connected to each other by ground-hugging stolons and form a dense groundcover over time. Dense clusters of fuzzy white flower heads are borne in March at the top of stalks that are 6 to 18 inches tall. The flower heads resemble a cat’s paw, hence the common name.

Cultural Requirements: Plantain Pussytoes requires dry to slightly moist soil and good drainage as well as full sun or partial shade. It thrives in poor soil.

Landscape Uses: The plant forms a silvery mat in the landscape and is an excellent groundcover for hot, rocky, dry habitats.

Size: 3 to 16 inches high and 1?2 to 1 foot wide

Hardiness Zones: All of Georgia

Habitat: Roadsides, woods and pastures

Native To: Maine to Minnesota, south to Missouri, east to Georgia

Propagation: Seed or division
Seed: Collect seeds in April or May. Store them dry at 40 °F until the next February, then plant them in outdoor beds or flats.
Division: Plants can be divided in early spring.

Comments: The flowers hold up well in fresh floral arrangements, or they can be dried and used in dry floral arrangements. The plant is dioecious (produces male and female flowers on separate plants). Female flower heads are fuzzier than male flower heads. Butterflies are attracted to the flowers.

Images: Page 54

Eastern Columbine / *Aquilegia canadensi* Family: Buttercup / *Ranunculaceae*

Life Cycle: Perennial

Characteristics: Eastern Columbine is an erect, branching plant. Leaves have three round lobes. Delicate red and yellow bell-like nodding flowers with spurred petals are produced on branch terminals in early spring and remain for about six weeks.

Cultural Requirements: This plant is easy to grow in full sun to partial shade. It prefers slightly alkaline soils that are well drained. The plant tends to re-seed readily and establish expanding colonies. Pruning after flowering will discourage re-seeding and will help avoid leaf miner problems.

Landscape Uses: Use Eastern Columbine in wildflower meadows, butterfly and hummingbird gardens or in woodlands having filtered shade.

Size: 2 to 3 feet tall and 1 to 1 1?2 feet wide

Hardiness Zones: All of Georgia

Habitat: Calcareous or mafic woods and nutrient-rich rocky slopes

Native To: Most of eastern North America (east of the Rockies)

Propagation: Seed
Seed: Collect seeds in May and store them dry at 40 °F for six months, then plant them in outdoor beds or flats. Germination should occur in about four weeks.

Comments: Hummingbirds and butterflies are attracted to the flowers.

Images: Page 54

Green Dragon / *Arisaema dracontium* Family: Arum / *Araceae*

Life Cycle: Perennial

Characteristics: Green Dragon is an unusual plant. A single irregular palmately compound leaf (see Figure 2) is borne on the end of a long stem. The leaf is divided into five to 15 unequal leaflets and arranged palmately (like the upturned palm of a hand). A separate flowering stem, approximately 6 inches long, appears in March or April. It bears at its tip a narrow green hooded spathe and a long-tipped spadix bearing numerous tiny white flowers (the dragon's tongue) protruding several inches from the spathe (see Figure 4). Flowers are held out of sight at the base of the spadix. The flowers are followed by green berries that change to red, then orange as they mature. The plant grows from an underground corm.

Cultural Requirements: Green Dragon prefers partial shade and moist, well-drained humus-enriched soil. It does poorly in heavy clay. It does not like to be disturbed once itis established.

Landscape Uses: Use this plant in moist, woodland gardens.

Size: 1 to 3 feet tall

Hardiness Zones: All of Georgia

Habitat: Bottomlands, stream banks or floodplains; wherever springtime moisture is abundant

Native To: New Hampshire to Florida, west to Texas, north to Nebraska and Minnesota

Propagation: Seed or division
Seed: Collect seeds from August to October. They have double dormancy, requiring both cold stratification and warm stratification to germinate. Place seeds with surrounding pulp in a bag of moist sphagnum moss in the refrigerator during winter. Separate the pulp from the seeds in spring and plant the seeds in outdoor flats. It may take another year for the seeds to germinate, so patience is a virtue. Division: Offsets from the below-ground corm can be removed in winter and potted or transplanted.

Comments: Birds and mammals eat the fruit of this plant. The swollen underground corm contains calcium oxalate crystals and should not be ingested. When digging or working with the seeds, wear gloves to avoid skin irritation.

Images: Page 55

Jack-in-the-pulpit / *Arisaema triphyllum* spp. quinatum Family: Arum / *Araceae*

Life Cycle: Perennial

Characteristics: One to two glossy green leaves, 12 to 18 inches long, divided into three leaflets appear like an umbrella on the top of stalks that are 1 to 2 feet tall. Flowers are borne in April or May below the foliage. The inflorescence is unusually shaped, with an erect spadix bearing numerous tiny green to purple flowers, and a sheath-like hooded spathe extending over the spadix. The outside of the spathe is usually green or purple, and the inside is usually striped purple or greenish-white. Red berries follow the flowers in mid- to late summer. Roots grow from corms.

Cultural Requirements: This plant prefers fertile, moist, humus-rich soil and partial shade.

Landscape Uses: Jack-in-the-pulpit prefers a shady woodland garden with plenty of moisture.

Size: 1 to 2 feet tall and 6 to 10 inches wide

Hardiness Zones: All of Georgia

Habitat: Fertile hardwood forests, stream banks or floodplains where spring moisture is abundant

Native To: North America east of the Rocky Mountains

Propagation: Seed or division
Seed: Seeds have a double dormancy. Harvest seeds from August to October, remove them from their pulp and sow them in outdoor beds or flats. They require cold stratification followed by warm stratification, then cold stratification, then warm again. This can be satisfied by keeping them outdoors year-round. They may take up to two years to germinate.
Division: The corms can be divided from winter to early spring.

Comments: Birds and mammals enjoy this plant's berries. All parts of Jack-in-the-pulpit contain calcium oxalate crystals and should not be ingested. When digging or handling the seeds, wear gloves to avoid skin irritation.

Images: Page 55

Canadian Wild Ginger / *Asarum canadense* Family: Birthwort / *Aristolochiaceae*

Life Cycle: Perennial

Characteristics: Canadian Wild Ginger has two heart-shaped, hairy basal leaves up to 6 inches wide. In spring, cup-shaped purple flowers, 1-inch across, appear on short stems between the two basal leaves. Flowers are handsome, having three showy sepals and no petals, but they are usually hidden by the foliage. The plant spreads by rhizomes to eventually form a dense mat.

Cultural Requirements: This plant prefers moist, well-drained soils with abundant organic matter and partial shade to full shade. It likes soils with a slightly acid to neutral pH in the range of 6 to 7. The plant spreads slowly by rhizomes and eventually becomes a dense groundcover. Apply mulch to conserve moisture.

Landscape Uses: Use Canadian Wild Ginger as a ground-cover in shaded, moist woodlands.

Size: 4 to 8 inches high and spreading

Hardiness Zones: 7

Habitat: Moist, shaded, nutrient-rich forests

Native To: Eastern North America, from Maine to Georgia, west to Louisiana, north to Oklahoma, Missouri and the Dakotas

Propagation: Seed or division
Seed: Collect seeds four to six weeks after flowering and plant them right away. Germination percentage decreases with storage. The seeds should germinate the following spring and bloom the second year.
Division: Rhizomes can be divided in fall or spring.

Comments: Early Colonists used the roots as a substitute for ginger.

Images: Page 55

Milkweed / Genus *Asclepias*

Milkweeds are plants most people either love or hate. They can be a nuisance in pastures, but in cultivated landscapes they can be beautiful additions to perennial borders and wildflower meadows. The foliage is a prime food source for a variety of butterfly larvae, and the flower nectar is valued by adult butterflies and hummingbirds. Some plants produce a substance called glycoside that discourages birds from eating butterflies.

Milkweed flowers are borne in clusters called umbels at the tips of stems. Each flower has five petals and an inner crown resembling a five-parted cup. Stems produce a white milky sap, with the exception of Butterfly Milkweed, which produces a clear sap when cut. Seeds are borne in pods that split, releasing hundreds of silky seeds that float long distances in the wind.

Plants are self-infertile, so if fertile seeds are desired, plant more than one plant in a colony so they will cross pollinate.

There are more than 20 native Milkweed species in the Southeastern U.S. with a habitat ranging from sand dunes to swamps. Five that are good candidates for landscape culture are described below.

Clasping Milkweed, Blunt-leaved Milkweed, Wavy-leaf Milkweed / *Asclepias amplexicaulis*
Family: Dogbane / *Apocynaceae*

Life Cycle: Perennial

Characteristics: Leaves are opposite, sessile (lacking stalks), typically in two to five pairs along the stem. They are oblong in shape, 3 to 4 inches long and 2 to 3 inches wide. The mid-rib of the leaf is lighter in color than the surrounding area, and lateral veins have a reddish tint. Leaf margins are wavy. Summer flowers are borne in terminal umbels, each having 15 to 80 flowers. Each flower is borne on a slender stalk, 1 to 1 1?2 inches long, and consists of five greenish-purple to pink petals that are curved downward. Above the petals are five light-pink cup-like appendages (called the hood) that have protruding flesh-colored horns. Seeds are borne in

spindle-shaped pods, 3 1?2 to 6 inches long and approximately 1 inch wide, that split lengthwise to release silky seeds that float on the wind.

Cultural Requirements: Clasping Milkweed does best in full sun and moist, well-drained soil. Aphids can be a problem.

Landscape Uses: Use Clasping Milkweed in sunny perennial borders, meadows and butterfly gardens.

Size: 1 to 3 feet

Hardiness Zones: All of Georgia

Habitat: Prairies, glades, rocky open woods and roadsides

Native To: Vermont, south to Florida, west to Texas, north to Minnesota

Propagation: Seed or cuttings
Seed: Collect seed pods when they turn tan and begin to split. Remove and discard their silky tails, then store the seeds dry at 40 °F for four to six months. Sow them in outdoor beds or flats when night temperatures are between 65 °F and 70 °F. The seeds need light to germinate, so cover them lightly with the germination medium.
Cuttings: Take root cuttings in February.

Comments: The larvae of many butterflies eat the foliage, and adult butterflies like the flower nectar.

Images: Page 56

Swamp Milkweed / Asclepias incarnata Family: Dogbane / Apocynaceae

Life Cycle: Perennial

Characteristics: Swamp Milkweed is a tall, clump-forming perennial. Medium green leaves are opposite, narrow, pointed, 3 to 6 inches long and 1 to 3 inches wide. Many flowering stalks arise from a single crown. The stalks contain a milky sap. In June or July, small, fragrant pink flowers appear in tight clusters at the stem ends. Each flower consists of five dark-rose petals that are curved downward. Above the flower are five erect cup-shaped appendages (collectively called the hood), each bearing a white, curved horn. Seeds are borne in spindle-shaped pods up to 4 inches long. The pods persist throughout the winter and split in spring, releasing silky-haired seeds that are carried by the wind.

Cultural Requirements: Swamp Milkweed is easy to grow in moist, well-drained soil and full sun. Plants have a deep tap root so it is best to leave them undisturbed once established. Aphids are attracted to this plant.

Landscape Uses: This is a good plant for butterfly and hummingbird gardens or wildflower

meadows. It also likes growing in wetland gardens and at pond edges.

Size: 4 to 5 feet high and 2 to 3 feet wide

Hardiness Zones: All of Georgia

Habitat: Moist stream banks, swamps and marshes

Native To: Most of North America, except the far west coastal states

Propagation: Seed or cuttings
Seed: Collect pods when they turn tan and begin to split in spring. Remove silky tails from the seeds, then store the seeds dry at 40 °F for four to six months. Sow the seeds the next spring in outdoor beds or flats. Cover them lightly with the germination medium because they need light to germinate.
Cuttings: Take root cuttings in February.

Comments: Foliage is slow to emerge in the spring. Monarch caterpillars feed on the foliage. All parts of the plant are poisonous.

Images: Page 56

Common Milkweed / Asclepias syriaca Family: Dogbane / Apocynaceae

Life Cycle: Perennial

Characteristics: Upright sturdy stems bear oblong leaves up to 8 inches long with reddish veins. From late spring to early summer, clusters of pinkish-purple flowers emerge from the upper leaf axils. They are pleasantly fragrant. Each flower consists of five reflexed pink petals below five erect pale-pink cup-like appendages that are collectively called the hood. Flowers are followed by warty seed pods, 2 to 4inches long, which split open when ripe to release numerous silky-tailed seeds that float in the air. Stems exude a milky sap when cut. The plant spreads by rhizomes.

Cultural Requirements: Common Milkweed is easy to grow in full sun and well-drained soil that is slightly moist to dry. It can be an aggressive spreader from rhizomes. It also tends to self-seed and naturalize, so remove seed pods before they split if spreading is not desired.

Landscape Uses: Use Common Milkweed in butterfly gardens, perennial borders, wildflower gardens or rock gardens.

Size: 4 to 5 feet tall and 1 foot wide

Hardiness Zones: All of Georgia

Habitat: Open woods, fields, waste areas and roadsides

Native To: Eastern and central North America, from Maine to Georgia, west to Texas, north to the Dakotas. It also is found in Montana and Oregon.

Propagation: Seed or cuttings
Seed: Collect pods when they turn tan and begin to split. Remove silky tails from the seeds, then store the seeds dry at 40 °F for four to six months. Sow them the next spring in outdoor beds or flats. Light is required for germination, so cover them lightly with the germination medium. Cuttings: Take root cuttings in February.

Comments: Flowers are a nectar source for many butterflies, and leaves are a food source for the larvae of Monarch butterflies.

Images: Page 56

Butterfly Weed, Butterfly Milkweed / *Asclepias tuberosa* Family: Dogbane / *Apocynaceae*

Life Cycle: Perennial

Characteristics: Butterfly Weed is a bushy plant having several flowering branches emerging from a single crown. Leaves are alternate, lance-shaped, 1 1?2 to 2 1?4 inches long, with pointed ends and smooth margins. Stems are hairy and the sap is clear. In late spring through summer, many small, bright orange flowers are borne in clusters, 2 to 5 inches across, on stem terminals. Seeds are borne in spindle-shaped pods that are 3 to 6 inches long. The pods split in late winter and the silky-haired seeds float to new locations.

Cultural Requirements: Butterfly Weed is easy to grow. It prefers full sun and well-drained soil. Once established, it is drought tolerant. It is difficult to transplant established plants from the wild, so it is best to plant container-grown plants.

Landscape Uses: This plant is an excellent addition to butterfly gardens, native plant gardens, rock gardens and wildflower meadows.

Size: 1 to 2 feet high and 1 to 2 feet wide

Hardiness Zones: All of Georgia

Habitat: Dry open woods, fields and roadsides

Native To: New England to Florida, west to Texas, north to Colorado and Minnesota

Propagation: Seed or cuttings
Seed: Collect pods when they turn tan and begin to split. Remove silky tails from the seeds, then store the seeds dry at 40 °F for four to six months. Sow seeds the next spring in outdoor beds or flats. Light is required for germination, so cover them lightly with the germination medium.
Cuttings: Take root cuttings in February.

Comments: Butterfly Weed was a 2010 Georgia Gold Medal Winner. The flowers are a nectar source for many butterflies, and the foliage is a food source for Monarch butterfly larvae. Seed pods are used in dried floral arrangements. This is the only milkweed in Georgia that lacks milky sap. Its sap is clear. However, like the other milk-weeds, the sap may irritate the skin, so gloves are recommended when taking cuttings or handling the plant.

Images: Page 57

White Milkweed / *Asclepias variegata* Family: Dogbane / *Apocynaceae*

Life Cycle: Perennial

Characteristics: Unbranched stalks containing milky sap bear large, opposite, ovate leaves up to 5 1?2 inches long and 2 3?4 inches wide. In May or June white flowers with purple centers are borne in several clusters, 2 to 3 inches across, on the tips of stems. In late summer, hundreds of seeds are produced in spindle-shaped pods that are 5 to 6 inches long. The pods split in winter, releasing silky-haired seeds that float in the wind.

Cultural Requirements: This plant prefers open wood-lands and slightly moist soils. Plant it where it gets filtered shade.

Landscape Uses: White Milkweed is a good plant for butterfly gardens, rock gardens and wildflower meadows.

Size: 2 to 3 feet tall and 18 to 24 inches wide

Hardiness Zones: All of Georgia

Habitat: Thickets, open woods, slopes and ridges

Native To: Connecticut to Florida, west to Texas and Oklahoma, north to Illinois and Ohio

Propagation: Seed or cuttings
Seed: Collect pods when they turn tan and begin to split. Remove silky tails from the seeds, then store the seeds dry at 40 °F for four to six months. Sow seeds the next spring in outdoor beds or flats. Light is required for germination, so cover them lightly with the germination medium.
Cuttings: Take root cuttings in February.

Comments: Like other milkweeds, the milky sap of White Milkweed may irritate the skin. Flowers attract butterflies, and the foliage is a food source for Monarch butterfly larvae.

Images: Page 57

Wild Indigo / Genus *Baptisia*

Plants in the genus *Baptisia* are members of the pea family and are legumes. They have clover-

like trifoliate leaves and pea-like irregular flowers borne in upright racemes at the ends of erect stems. Flowers have five petals: one large broad upper “banner” petal, two “wing” petals on either side and two lower “keel” petals that are joined to form a canoe shape (see Figure 4). Flowers are followed by distinctive black, hard, inflated seed pods containing small yellowish-brown, hard, waxy seeds. The roots contain nitrogen-fixing bacteria.

Wild Indigo is often called false indigo to indicate that it differs from true indigo, *Indigofera tinctoria*, a plant imported from India and used to establish a major dye industry in the Southeast in the 1800s. Blue Wild indigo, *Baptisia australis*, was used by the Cherokee Indians and early settlers as a source of blue dye for clothing. Some Indian tribes used Wild Indigo for medicinal purposes. The Osage Indians made eyewash from the plant. The Cherokee Indians made a tea from it to be used for treating sore teeth. The dried pods with loose seeds were used as rattles to entertain Indian infants.

Freshly sown Wild Indigo seeds germinate in about two weeks. Old seeds should be placed in hot water and soaked overnight to enhance germination. Note, however, that Wild Indigo crosses readily, so if there is a species planted adjacent to another one, the seed-grown offspring might not resemble the parent. Wild Indigo can also be propagated from softwood cuttings taken in spring. Cuttings should be dipped in a rooting hormone and kept in high humidity until they root, usually about eight weeks.

There are 14 *Baptisia* species native to the Southeast. Five that are worthy of landscape culture are described below.

White Wild Indigo / *Baptisia alba* Family: Legume / *Fabaceae*

Life Cycle: Perennial

Characteristics: White Wild Indigo is a bushy, upright plant with clover-like, trifoliate, bluish-green leaves. Leaf-lets are up to 2 inches long and covered with velvety hairs. They turn black in fall. Stems are covered with white fuzz. From April to July, white pea-like flowers (up to 1?2 inch long) are borne in terminal clusters (racemes) rising above the foliage. Oval seed pods turn black in fall and persist on the plant.

Cultural Requirements: White Wild Indigo prefers well-drained soil and full sun. Once established, it tolerates heat and drought. It slowly expands outward from the clump and should not be disturbed.

Landscape Uses: Use White Wild Indigo in water-smart gardens (gardens designed with water conservation in mind), naturalized areas, butterfly gardens or perennial borders.

Size: 2 to 3 feet tall and 2 to 2 1?2 feet wide

Hardiness Zones: All of Georgia

Habitat: Prairies, dry open woods and ravines

Native To: Southeastern U.S.

Propagation: Seed or cuttings
Seed: Harvest seeds when pods turn tan but seeds inside are still green. They do not require pretreatment, so plant them immediately. It takes up to three years to produce a flowering plant from seed.
Cuttings: Root cuttings can be taken in fall.

Comments: White Wild Indigo is easy to grow. It is tolerant of drought and poor soils and has no major pest problems. Flowers and seed pods can be dried and used in floral arrangements. The plant attracts birds and butterflies. Spiked Wild Indigo, *Baptisia albescens*, has white flowers and is somewhat smaller than White Wild Indigo, and its fruit are brown and elongated instead of black and oval like those of *Baptisia alba*.

Images: Page 57

Blue Wild Indigo / *Baptisia australis* Family: Legume / *Fabaceae*

Life Cycle: Perennial

Habitat: Riverbanks, gravel bars and open meadows

Characteristics: Blue Wild Indigo is a bushy, upright plant with clover-like leaves having three bluish-green leaflets up to 2 inches long. Purple pea-like blooms appear in spring in dense terminal racemes, 4 to 16 inches long, above the foliage. Charcoal black seed pods, up to 2 1?2 inches long, rattle when dry.

Cultural Requirements: Blue Wild Indigo is easy to grow. It prefers full sun to partial shade and slightly moist to dry soil. Once established, it is drought tolerant and low maintenance. Cutting plants back after flowering promotes more compact growth and prevents self-seeding; however, it also prevents the formation of seed pods, which are an attractive feature of the plants.

Landscape Uses: Use Blue Wild Indigo in wildflower meadows, butterfly gardens and perennial borders.

Size: 3 to 4 feet tall and 3 to 4 feet wide

Hardiness Zones: All of Georgia

Native To: New Hampshire, south to Georgia, west to Texas, north to Nebraska, Iowa and Michigan

Propagation: Seed or cuttings
Seed: Harvest seeds when pods turn tan but seeds inside are still green. They do not require pretreatment, so plant them immediately. It takes up to three years to produce a flowering plant from seed.
Cuttings: Root cuttings can be taken in fall.

Comments: American Indians and settlers used this plant for extracting dye for fabrics. Bees and butterflies are attracted to the plant. A dwarf variety, *Baptisia australis* var. *minor*, is available. A popular hybrid cultivar in the nursery trade, called Purple Smoke, is a cross

between Blue Wild Indigo and White Wild Indigo.

Images: Page 58

Longbract Wild Indigo, Cream Wild Indigo / *Baptisia bracteata* Family: Legume / *Fabaceae*

Life Cycle: Perennial

Characteristics: Longbract Wild Indigo has loosely branched stems that bear alternate, trifoliate, clover-like leaves. Leaflets are about 3 inches long, 1 inch wide and pointed at both ends. Leaves and stems are gray-green due to numerous small hairs. In March or April, creamy white pea-like flowers, 1 inch long, droop downward in terminal racemes. Black pea-like seed pods follow the flowers and persist on the plant throughout the fall and winter months.

Cultural Requirements: This plant has a deep tap root, allowing it to withstand dry conditions and heat. It prefers full sun or partial shade. It may need some support to stand upright when grown in shade.

Landscape Uses: Longbract Wild Indigo provides a nice backdrop in perennial gardens, wildflower gardens, butterfly or hummingbird gardens or naturalized areas.

Size: 18 to 24 inches tall and 12 to 25 inches wide

Hardiness Zones: All of Georgia

Habitat: Sand hills, open woods and meadows

Native To: Eastern United States

Propagation: Seed: Harvest seeds from October to December when the seed pods turn black. After removing the seeds from their pods, soak them overnight in tepid water before planting them in outdoor beds or flats.

Comments: Flowers are used in fresh floral arrangements, and seed pods are used in dried floral arrangements. The flowers attract butterflies and hummingbirds.

Images: Page 58

Gopherweed / *Baptisia lanceolata* Family: Legume / *Fabaceae*

Life Cycle: Perennial

Characteristics: Leaves are trifoliate. Leaflets are elliptic in shape, 1 to 4 inches long, with smooth margins. In spring and summer, yellow pea-like flowers appear at the leaf axils in short, loosely clustered racemes. These are followed by spherical black pods, 1?2 to 1 inch in length.

Cultural Requirements: Gopherweed prefers moist, fertile, acidic, well-drained soil in full sun.

Once established, it is heat and drought tolerant. A Coastal Plain plant, Gopher-weed likes sandy, porous soil.

Landscape Uses: Use Gopherweed in perennial borders, rock gardens, butterfly gardens or open woods.

Size: 2 to 3 feet tall and 3 feet wide

Hardiness Zones: All of Georgia

Habitat: Sand hills, open woods and roadsides in the Coastal Plain

Native To: The Coastal Plain from South Carolina to Florida

Propagation: Seed: Harvest seeds from October to December when the seed pods turn black. Place the seeds in tepid water and allow them to soak overnight before planting them in outdoor beds or flats.

Comments: Dried foliage and seed pods are attractive in floral arrangements. Butterflies are attracted to the flowers. A similar species, *Baptisia perfoliata*, is also found in the Coastal Plain.

Images: Page 58

Shoofly Wild Indigo / *Baptsia tinctoria* Family: Legume / *Fabaceae*

Life Cycle: Perennial

Characteristics: Leaves are small and clover-like, trifoliate and gray-green, with leaflets up to 1 inch long. In June or July, sparsely flowered racemes, 4 to 5 inches long, bear creamy yellow pea-like flowers up to 1?2 inch long. Seed pods follow flowers and turn black when mature.

Cultural Requirements: Plant Shoofly Wild Indigo in full sun to partial shade and dry to moderately moist soils. Once established, it is drought tolerant. Cut the plant back lightly after flowering to maintain a compact growth habit.

Landscape Uses: Use Shoofly Wild Indigo in cottage gardens, wildflower meadows, butterfly gardens and perennial borders.

Size: 2 to 3 feet tall and 2 to 3 feet wide

Hardiness Zones: All of Georgia

Habitat: Dry, open woods and sandy, acidic soils

Native To: Southeastern Canada, New England, south to Florida, west to Louisiana, north to Minnesota

Propagation: Seed: Plant seeds directly after collecting them in the fall.

Comments: Shoofly Wild Indigo flowers are smaller and are not as showy as those of the other native *Baptisias*