

The southeastern United States is one of the most floristically diverse regions in the northern hemisphere. During the last ice age, glaciers forced many northern species into the south, where they continue to thrive at higher elevations. For many southern semi-tropical species, protected hollows in the foothills of the Appalachians is the furthest north they can grow. In the temperate rain forests of the southern Blue Ridge and Appalachians, a large number of endemic plants grow that are unique to this habitat.

When European settlers came to these shores, they found an incredibly diverse flora, much of it totally strange to them. Early relations between Europeans and indigenous peoples were sometimes friendly and, in addition to showing settlers how to grow corn, beans, and squash, knowledge of medicinal plant use was generously shared. Some of the first exports from “the new world” were medicinal plants such as sarsaparilla, tobacco, and sassafras (Monardes, 1577). The evidence of this diffusion of herbal knowledge is the large number of southeastern and eastern plants that are the foundations of not only American herbalism, but that of England, Australia, and New Zealand as well.

Many of our most popular herbs used today were learned from the Lenape, Iroquois, Powhatans, Wampanoags, Piscataways, Mohegans, Cherokees, Muskogees, and other eastern native peoples. The list of these plants is extensive, some of them include: American Ginseng (*Panax quinquefolius*), Goldenseal (*Hydrastis canadensis*), Saw Palmetto (*Serenoa repens*), Black Cohosh (*Actaea racemosa*), Blue Cohosh (*Caulophyllum thalictroides*), Witch Hazel (*Hamamelis virginiana*), Lobelia (*Lobelia inflata*), Bloodroot (*Sanguinaria canadensis*), Slippery Elm (*Ulmus rubra*), Passionflower (*Passiflora incarnata*), Black Haw (*Viburnum prunifolium*), Skullcap (*Scutellaria lateriflora*), and Wild Yam (*Dioscorea villosa*). It is hard to imagine western herbal practice without these and other eastern American botanicals.

In spite of the wide acceptance of many herbs, other plants that were (and still are) widely used by native peoples, and then by African Americans and rural southerners are little-known outside of the south. This paper seeks to address this lack of knowledge about this valuable herbal heritage, promoting the use of widely available local species. Not only does this promote a regional and ecologically sound practice of herbal medicine, it also enhances our therapeutic choices without having to import foreign herbs which can be old, adulterated and, in some cases, contaminated with heavy metals and pesticide residues.

A Contribution to the Southeastern American Materia Medica

Balmomy herb (*Chelone glabra*) Taste: bitter Energy: cool, dry Western classification: aperient, anthelmintic, bitter tonic, cholagogue/choleretic, prokinetic

Balmomy, or Turtlehead, is a beautiful herb with either white or pink flowers (*C. lyoni*, *C. obliqua*). It grows in damp deciduous woods and is frequently found alongside of small branches (creeks). Balmomy is an effective digestive bitter, stimulating production of saliva, gastric HCL and liver and gallbladder secretions. It is especially useful for people with impaired fat metabolism, usually accompanied by gas, nausea, belching and a chronically sluggish bowel. It can also be used to promote gastric and small intestine motility and it is useful for GERD, SIBO and IBS. It can be combined with carminatives (Ginger, Cardamom, Fennel) to make a spiced bitters to treat dyspepsia and achlorhydria. Skin problems (psoriasis, eczema or acne) and hepatic torpor (biliary dyskinesia) respond to the use of Balmomy as well. Mixed with other anthelmintics (Devil’s Shoestring, Wild Garlic, or Black Walnut Hull) it has been used in treating pinworms and roundworms.

Dosage: Tea: 1 tsp. dried herb to 8 oz. of water, steep 1 hour. Take 4 oz. before meals.

Tincture: (1:5), 30% ETOH .75-1.5 mL TID (before meals)

Boar Hog root (*Ligusticum canadense*, *Angelica venenosa*) Taste: spicy, pungent, slightly bitter Energy: warm, moist Western classification: antibacterial, aphrodisiac, carminative, diaphoretic.

In much of the south, Boar Hog root is a well-known medicine for weakness, fatigue, and impotence. There are actually two plants known as Boar Hog root. In the southern lowlands, African-Americans and people in rural areas call *Angelica venenosa*, Boar Hog root. In the southern highlands, *Ligusticum canadense* is known as Boar Hog root. Whether both plants have the same activity is unknown and neither has any research to confirm folk usage. *Angelica venenosa*, or hairy *Angelica*, root has been used by the Iroquois as a poultice for pulled muscles and joint pain. Tommie Bass used the root as a systemic tonic, to treat colds, to enhance digestion, and most especially to treat erectile dysfunction (Patton, 2004). *Ligusticum canadense*, or *Angelico*, is related to Osha root (*Ligusticum porteri*) and the Chinese herb Chuan Xiong (*L. wallichii*) both of which are very active medicinal plants. Chewing the root or taking the tea also has a reputation of enhancing male and female reproductive function and improving general strength and stamina.

Dosage: Tea: 1-2 tsp. dried root, 10 oz. water, decoct 10-15 minutes, steep 1/2 hour. Take 1-2 cups per day.

Cross Vine root or leaf (*Bignonia capreolata*) Taste: bitter, sweet Energy: neutral Western classification: adaptogen(?), alterative, aperient, diaphoretic, diuretic

Cross vine is a little-known remedy outside of the deep south where it grows. It is found in South Carolina, North Carolina, Georgia, Alabama, Mississippi, Louisiana, and Texas and has a history of use by various native peoples. The Choctaw combine the bark with southern Magnolia bark (*M. grandiflora*) and boil it. The steam is inhaled to treat cardiac edema (Taylor, 1940). The Koasati (Coushatta) drink a bark decoction for headaches and also combine the leaves with several other plants for treating arthritis. Other native people such as the Houma use it as a gargle of the root tea for diphtheria (Austin, 2004), and the Cherokee use the leaf tea to purify the blood (Hamel & Chiltoskey, 1975). The famed botanist William Bartram stated in 1789 that “the country people of Carolina chop these vines to pieces, together with China Brier (*Smilax* spp.) and Sassafras roots and boil them in their beer in the spring, for a diet drink, in order to attenuate and purify the blood and juices”. During the Civil War, Frances Porcher, in his classic book, *Resources of the Southern Fields and Forests*, suggested using this plant as a substitute for the embargoed Jamaican Sarsaparilla to treat syphilis, chronic arthritis, and blood dyscrasias. Famed herbalist Tommie Bass was responsible for keeping the use of this herb alive. He considered Cross Vine on par with Ginseng as a plant to give energy and strength, and relieve fatigue in humans or animals.

Dosage: Tea: 2-3 tsp. dried leaf, 10 oz. water, decoct 10-15 minutes, steep 1/2 hour. Take 1/2-1 cup, twice per day.

Cucumber Magnolia bark (*Magnolia acuminata*) Taste: bitter Energy: cold, neutral Western classification: anti-inflammatory, antipyretic, antiamoebic, analgesic, bitter tonic

The Cucumber Magnolia, or Cucumber Tree, is a large, distinctive tree, with enormous leaves and large fragrant flowers. The bark of this tree, along with that of other magnolias (*M. grandiflora*, *M. macrophylla*, *M. virginiana*) have a long history of use by native peoples. The Cherokee use the bitter bark of this tree with Ironwood bark (*Ostrya virginiana*) as a decoction for toothaches (Banks, 2004). They also used the bark tea for colic in babies, sour stomach, diarrhea and dysentery, and sinus problems (Banks, 2004; Hamel & Chiltoskey, 1975). The celebrated Hessian physician Johann David Schoepf, in his early work on American medicinal plants, *Materia Medica Americana* (1787) states that the bark of either *M. acuminata* or *M. glauca* can be used to treat diarrhea, coughs, fevers, hemorrhoids, and nasal congestion. Porcher mentions the cones being used for arthritis and the bark as an effective substitute for Cinchona bark to treat malaria. Tommie Bass similarly used the bark to treat arthritis, fevers, and poor digestion (Patton, 2004). I use Cucumber Tree bark to treat dengue fever (along with Dogwood bark, Lycium root, and Tree Peony bark), bacterial or amoebic dysentery (use it with Elicampagne and *Artemisia annua*) and combined with Turmeric, Devil’s Shoestring, and Prickly Ash, or Ginger for hot/damp arthritis. Modern phytochemical research has found that various *Magnolia* species have significant anti-inflammatory activity (Schühly, et al, 2009). Extracts of three southeastern *Magnolia* species all inhibited COX-2 which gives credence to its traditional use for arthritis.

Dosage: Tea: 2-3 tsp. dried bark to 16 oz. water, decoct 15-20 minutes, steep 1/2 hour. Take 4 oz. TID.

Devil's Shoestring rhizome (*Tephrosia virginiana*) Taste: bitter, acrid Energy: cold, dry Western Classification: alternative, analgesic, anti-inflammatory, cathartic, diaphoretic, vermifuge

Tephrosia, a member of the Fabiaceae family contains many highly active compounds including rotenone. It has long been used as a fish poison and vermifuge (for pinworms and roundworms), and it is equally effective topically for lice and other skin parasites. Other species of *Tephrosia* have also been shown to have antiplasmodial, antibacterial and antidiarrheal effects. Southeastern native people also use Devil's Shoestring internally and externally (as a bath) for pain caused by arthritis, muscle cramps, bursitis, and shin splints. Ballplayers bathe their legs in a decoction of the root to prevent leg cramps and muscle fatigue. The tea is also taken to cure lassitude (Mooney, 1891) and to make children strong and tough (Olbrechts, 1932). Related Australian species of *Tephrosia* (*T. varians*, *T. rosea*) have gained acceptance among that country's herbal practitioners as an effective anti-inflammatory/analgesic arthritis remedy (Kielczynski, 1997) and *T. purpura* has been shown to possess antinociceptive and antispasmodic activity.

Dosage: Root tea: 1/4 tsp. to 8 oz. of water, steep 30 minutes. Drink 2 oz. 3 times per day
Tincture (1:5): 40% ETOH, 0.5-1 mL TID

Devil's Walking Stick/Hercules Club bark or root bark (*Aralia spinosa*) Taste: acrid, bitter Energy: warm, dry Western Classification: analgesic, anti-inflammatory, diaphoretic, expectorant, carminative, emetic.

Hercules Club, or Devil's Walking Stick (not to be confused with Prickly Ash, also known as Hercules Club) is a small shrub commonly used as a medicine for pain, especially arthritis, toothaches, and flatulent colic. The bark or root bark tea is taken hot to stimulate sweating and thus lower a fever. The root tea by itself or mixed with the roots of Devil's Shoestring (*Tephrosia virginiana*) is used for back and joint pain, rheumatism, muscle pain, and muscle spasms. The herb should only be used dried as the fresh herb acts as a purgative and emetic. Even the dry bark can cause nausea (and vomiting) in sensitive people and combining it with carminative herbs can help prevent this. It is contraindicated in pregnancy. A salve made from the roots can be applied to poorly healing sores and the tea held in the mouth helps to relieve toothaches. In a laboratory study an *Aralia spinosa* extract inhibited biofilm formation and quorum sensing in MDR *Staph aureus* (Dettweiler, et al, 2019). In South Carolina this plant is known as Rattlesnake Master and is a highly esteemed treatment for rattlesnake bites (used orally and topically).

Dosage: Tea: 1 tsp. dried bark to 8 oz. water. Decoct 15 minutes, steep 40 minutes. Take 1/2 cup, 3 times per day.

Dogwood bark, leaf, berry or flower (*Cornus florida*) Taste: bitter Energy: cool, dry Western Classification: analgesic, antiperiodic, antispasmodic, astringent, bitter tonic.

The Dogwood is a small shrubby tree, with lovely early spring flowers. The white flowers (they are actually sepals) have been used as a substitute for Chamomile for treating colds, colic and influenza. The bark was once used similarly to quinine for malaria and other periodic fevers. In vitro studies show that Dogwood has moderate activity against *Plasmodium falciparum* (the cause of malaria) as well as pronounced inhibitory effects against *Leishmania tarentolae* (Greziouse, et al, 2012). It is useful for many chronic fevers, especially if accompanied by diarrhea or severe muscle aches. I have used Dogwood bark along with Lycium Root, Cucumber Magnolia, and Tree Peony bark to treat Dengue Fever. A combination of Dogwood Bark, Wild Cherry Bark and Spicebush is used to treat measles (Banks, pp. 84). Lower back pain and muscle spasms of the legs and feet all respond to regular use of the tea. Mixed with Butternut Bark, Dogwood bark is effective for treating pinworms in children. The decoction of the bark or berries can also be used to treat diarrhea. Porcher (1970) mentions the berries could be made into a bitter digestive tonic and during the Civil War the berries were used as a substitute (like the bark) for quinine. In phytochemical studies the fruits have been shown to inhibit alpha-glucosidase activity and have significant antioxidant and anti-inflammatory activity (Truba, et al 2020). Externally the bark can be used as a poultice for bedsores and oozing wounds and as a mouthwash for gum disease. The twigs can be used as chewing sticks to whiten the teeth and the crushed leaves are effective for drying up a poison ivy rash.

Dosage: Tea: 1/2 tsp. dried bark to 8 oz. of water. Decoct 15 minutes, steep 1/2 hour.

Take 4 oz. 3 - 4 times per day.
Tincture (1:5): 35% ETOH, 1.5-3 mL TID

Eryngo herb (*Eryngium yuccifolium*, *E. aquaticum*) Taste: bitter, acrid Energy: cool, neutral Western Classification: anti-inflammatory, diaphoretic, emetic, expectorant

Eryngo (also known as Button Snake Root or Rattlesnake Master) is used frequently by southeastern native peoples (Muscogee Creek, Koasati) as a ritual emetic during the summer Green Corn Ceremony. While the root is emetic in large amounts (it was usually combined with Red Root/*Salix humilis* and/or the Black drink/*Ilex cassine*), smaller amounts act as a useful anti-inflammatory to the respiratory, genito-urinary, and gastro-intestinal tracts. The black letter symptoms for Eryngo are a chronic low-grade urinary irritation that is interpreted as a constant sexual urge. In clinical practice I have found Eryngo very useful for cystitis, interstitial cystitis, dysuria, urinary calculi, and chronic non-bacterial prostatitis. It combines nicely with Agrimony, Couch Grass, or Corn Silk for urinary irritation. It also is beneficial for upper respiratory tract irritation with chronic coughing, laryngitis, and chronic bronchitis. It can also have some benefit for mild inflammatory bowel conditions, along with Yarrow, Turmeric, and Kudzu. While the root is traditionally used to make a tincture, the entire fresh plant can be used and is effective. As mentioned above, the plants are commonly referred to as Rattlesnake Master. This was due to its use for treating venomous snakebites. In an in vitro study, all parts of the plant inhibited the damaging proteins in snake venom and protected mammalian tissue elastase (Price, 2016). This herb has become increasingly scarce in the wild. If you are going to harvest wild plants, sparingly harvest the leaves/stems rather than the root or entire plant. Even better, cultivate this herb and leave the wild population alone.

Dosage: Fresh Tincture (1:2): 35% ETOH, 15-30 gtt. TID/QID

Tea: 1 tsp. dried herb, 8 oz. water, steep 45 minutes, take 4 oz. TID.

Fringe Tree root bark (*Chionanthus virginiana*) Taste: Bitter, acrid Energy: cold, dry Western Classification: aperient, bitter tonic, cholagogue/choleretic, emetic (large doses)

This small, shrubby tree is native to the Big Thicket area of Texas and Louisiana, east to Virginia, and northern Florida, north into Arkansas, Missouri, Kentucky, and Tennessee. It is hardy to Zone 4, but rarely found growing wild north of the southern-most parts of Pennsylvania. While this tree is not the preferred food for the invasive Emerald Ash Borer, they can and do attack this tree, which may make it even more scarce (Peterson, et al, 2020). It is used to a limited degree by native people (Choctaw and Alabama/Koasati) for wounds, bruises, and cuts as a topical application. The Eclectics introduced this remedy and at one time it was quite popular amongst those practicing botanic medicine. Over the last 70 years this remedy has faded from view, but it is no less useful now than it was in the early 1900's. Fringe Tree was one of the most commonly used remedies for the liver and gallbladder. It promotes increased secretion from both organs and is used for hepatic torpor (biliary dyskinesia), sluggish gallbladder, jaundice, hepatic colic, hepatomegaly, slow transit time with clay colored stools, and gallbladder pain caused by eating fats. *Chionanthus* is also indicated for bilious headaches, non-alcohol induced acute pancreatitis (use it with Red Root and Milk Thistle) and splenomegaly. Overdose of Fringe Tree can cause nausea, diarrhea, vomiting, or headaches.

Dosage: Fresh Tincture (1:2): 60% ETOH, 5-20 gtt. TID/QID

Tea: 1/2-1 tsp. recently dried bark to 8 oz. water. Decoct 10-15 minutes, steep 1/2 hour. Take 2 oz. TID.

Rabbit Tobacco herb (*Pseudognaphalium obtusifolium*) Taste: sweet, bitter Energy: cool, dry Western Classification: astringent, carminative, diaphoretic, expectorant, nervine.

Common in fields and clearings, Rabbit Tobacco is frequently found in Yuchi, Western Cherokee, Oklahoma Seminole, and Creek homes as a physical and spiritual medicine remedy. The tea is used to treat colds, influenza, coughs, diarrhea, stomachaches, strep throat and children's fevers. Mixed with other medicines it is also used for IBS (with Wild Yam, Kudzu and Catnip), asthma (with Lobelia, Wild Cherry Bark and Licorice) and vaginal candidiasis (with Yellow Root). Externally the tea is applied to cuts, sore muscles and bruises. The leaves are chewed by some people in preference to Tobacco; others mix the two to moderate Tobacco's emetic qualities. The steam from the tea was inhaled to reduce sinus congestion. The flowers and leaves of Rabbit Tobacco are also commonly mixed with Red Cedar and burned to create

aromatic smoke that is used to purify a home after someone has died, for protection, to treat fear and confusion, and relieve spiritual illnesses.

Dosage: Tea: 1-2 tsp. dried herb to 8 oz. of water, steep 40 minutes. Take 2-3 cups per day.

Sawbrier/Chaney Brier/Bamboo Brier root (*Smilax bona-nox*, *S. glauca*, *S. lanceolata*) Taste: slightly sweet, bland Energy: cool, moist Western Classification: alterative, anti-inflammatory, diuretic

Various species of Smilax are used by eastern native people as a source for a nutritious starch. The mature roots are chopped, pounded in a mortar, and mixed in water. The floating roots are skimmed out and the water poured out. At the bottom is a sediment which is dried to make a pale reddish powder. This powder is mixed with hominy corn or corn meal and fried in bear grease to make fritters. The powder can also be mixed with honey and water to make a jelly (Austin, 2004). In addition to being used for food, the roots of these plants have also been used by native peoples to treat arthritis, urinary tract infections, skin problems, venereal diseases, and as a systemic tonic. The Eclectics said that the roots of *S. lanceolata* and *S. bona-nox* were actually superior to Jamaican Sarsaparilla and very effective for treating inflammatory arthralgias and skin conditions. Clinically I would agree that these American Smilax species are very effective for treating red, hot skin conditions (psoriatic arthritis, psoriasis), connective tissue disorders where the skin, muscles, or fascia is red and hot to the touch (rheumatoid arthritis, psoriatic arthritis), as well as IBS or IBD.

Dosage: Tincture (1:5): 35% ETOH, 2-4 mL TID/QID

Tea: 2-3 tsp. dried root, 12 oz. water, decoct 15-20 minutes, take 4 oz. TID

Sourwood leaf (*Oxydendron arboreum*) Taste: sour Energy: cool, dry Western Classification: antiseptic, astringent, diuretic, nervine.

Sourwood with its racemes of white bell-like flowers is a favorite pollen source for mountain bees. The honey from this source is famous for its unique taste and fragrance. In contrast to the honey's sweetness the leaves are tart and drying. The leaf tea is an effective urinary tract antiseptic primarily due to its arbutin content. Chronic UTIs with burning urine or a mucus discharge respond well to *Oxydendron*; it is also beneficial for BPH and prostatitis. The tea is also frequently used for aphthous stomatitis, thrush, edema, diarrhea, nervous stomach and frazzled nerves (a nice hot cup of the tea with a generous dollop of sourwood honey works wonders!). The leaf tea is also used for damp coughs, postnasal drip, and damp asthma (Hamel & Chiltonskey, 1975). Due to the high levels of oxalates in the leaves people with calcium oxalate kidney stones should avoid using this herb.

Dosage: Tea: 2 tsp. dried leaf to 8 oz. of water, steep 40 minutes. Take 2-3 cups per day.

Fresh Tincture (1:2): 30% ETOH, 1-2 mL TID

Stillingia root (*Stillingia sylvatica*) Taste: acrid, bitter Energy: hot, dry Western Classification: alterative, expectorant, laxative

Stillingia, or Queen's Delight, has a long history of use by native people, African Americans, as a southern regional folk medicine, a popular Eclectic medicine, and finally as an "official medicine" in the 1831-1926 US Pharmacopoeias and in the National Formulary from 1926-1947. The Creeks (Muscogees), Seminoles, and Cherokee all use the roots as an active cathartic, to treat venereal diseases, for digestive problems, and for menstrual difficulties. The Eclectics widely used the fresh root tincture for sore throats, laryngitis, and croupous coughs where the mucous membranes are dry, red, and glistening, with little or no secretion (Felter & Lloyd, 1905). They also recommended it for dry winter coughs and chronic coughs. Its long history of use for treating syphilis (which is a spirochete) is interesting, but it is unlikely to be used for this condition since the advent of antibiotics. I have used the root as part of a formula for treating *Borrelia* infections (Lyme disease) with some beneficial results. Queen's Delight is also used as an alterative to enhance elimination of metabolic wastes. It has been used to treat scrophula, hepatic torpor, and chronic skin conditions. It is an ingredient in the Hoxsey Formula and Dr. Robert Newton's Compound Syrup of Stillingia. Both formulas have a long history of use for treating cancer. I use this herb for treating arthritis with lymphatic involvement, damp eczema that is red and inflamed, and laryngitis with paroxysmal coughs.

Dosage: Fresh tincture (1:2): 50% ETOH, 2-5 gtt. BID/TID

Sumac berries and bark (*Rhus glabra*, *R. typhina*, *R. copallina*, *R. aromatica*) Taste: sour (berries)
Energy: cool, dry (berries & bark) Western Classification: astringent, anti-inflammatory, antibacterial, styptic

Sumac berries are used by many people as a tart-acidulous beverage tea known as sumac-aide. They are also used medicinally as a gargle for sore throat, to heal aphthous stomatitis and bleeding gums. The berries can be drunk as a tea to help stop bedwetting (use it with Schisandra and Agrimony), for cystitis with burning, scalding urine, and diarrhea. The bark is made into an astringent tea, to treat diarrhea, coughing blood, hematuria, menopausal sweating, and can be applied topically to burns. The bark of Fragrant Sumac (*R. aromatica*) was used by the Eclectics for frequent urination associated with diabetes. It is unknown whether it simply reduces urine output or actually benefits diabetes mellitus. The bark of this small Sumac can be used for urinary incontinence, alkaline cystitis, and menorrhagia.

Sumac has economic uses as well. The clusters of berries yield a black dye when boiled and are used as a spice (*Za'atar*) in Middle Eastern cuisines. The red leaves gathered in the autumn are mixed with tobacco and used in ceremonial smoking mixtures.

Dosage: Tea: 1-2 tsp. dried berries to 8 oz. hot water. Steep 15-20 minutes. Take 2 cups per day.
Tincture (berries) 1:5: 30% ETOH, 1.5-3 mL gtt. QID

Sweet Fern leaf (*Comptonia peregrina*) Taste: bitter, resinous Energy: warm, dry Western Classification: antibacterial, antifungal, astringent, bitter tonic, carminative

This aromatic-smelling shrub is mostly thought of as a northern plant. It does not grow well below zone 6, but is frequently found the southern uplands and mountains of Virginia, North Carolina, Georgia, and South Carolina. The leaves are used to make a beverage tea as well as for medicine. The Cherokee used the tea for treating intestinal parasites and other native people such as the Ojibwa used it for diarrhea and digestive problems. It has been commonly used as a topical wash for poison ivy, cuts, bruises, and sprains. A bath of the leaf decoction can relieve arthritic pain and an inhalation of the steam is useful for treating head colds, sinus infections, and sinus headaches. Internally the tea is useful for menstrual cramps with a heavy flow, dyspepsia, to treat bacterial diarrhea, and as a gargle for sore throats and periodontal disease. In phytochemical studies the leaves of Sweet Fern were found to have significant activity against gram-positive bacteria including MRSA (Shahjahan Kabir, et al, 2008).

Dosage: Tea: 1 tsp. dried leaf, 8 oz. hot water, steep covered 10-15 minutes. Take 4 oz. BID/TID

Sweet Gum resin or bark (*Liquidambar styraciflua*) Taste: pungent, bitter Energy: warm, dry Western Classification: anti-inflammatory, antiseptic, astringent, carminative, diuretic

This is a large tree, fond of moist soils, it has become more common since the decline of the previously dominant chestnut. Sweet Gum has rough bark which, when damaged, exudes its fragrant resin, and spiky fruits that children love to throw at anything that makes a good target. The tea of the inner bark acts as an antiseptic astringent and is helpful for diarrhea, dysentery and UTI's. In addition to these uses, it has been used as a bath and tea for rheumatic and muscular pain. In a laboratory study, an alcohol extract of Sweet Gum bark exhibited significant anti-inflammatory activity and it also enhanced the effects of antibiotics against *Staph aureus* and *Enterococcus faecalis* (Mancarz, et al, 2019). The decoction of the resin can be used similarly, plus it is effective for treating strep throat, herpes sores, bedsores, cracked nipples and mixed with Wild Yam for heart pain. A poultice of the inner bark or resin makes a good drawing plaster for splinters and boils and can also be applied to wounds, cuts and local infections. T.J. Lyle, MD used the powdered resin mixed with olive oil and beeswax as an ointment used to treat ringworm, eczema, scabies, decubitus ulcers and hemorrhoids. According to Banks (pp. 57), Sweet gum, along with 6 other barks (*Euonymus americanus*, *Vitis aestivalis*, *Plantanus occidentalis*, *Fagus grandiflora*, *Smilax glauca*, and *Nyssa sylvatica*) was made into a tea for "bad disease". In Chinese medicine, the unripe seed pods of *L. taiwaniana* are known as Lu Lu Tang and are used to enhance circulation and relieve stagnation of blood and qi. It is used to treat back pain, arthritis, and joint pain. The seed pods are also used to treat allergic rhinitis and edema (Chen & Chen, 2004).

Dosage: Tea: 2 tsp. to 8 oz. water, decoct 20 minutes, steep 1 hour. Take 1-3 cups per day.
Resin tea: 2 tsp. to 8 oz. water, decoct 45 minutes. Take 4 oz. 3 times per day.

Tag Alder bark (*Alnus serrulata*) Taste: bitter Energy: cold, dry Western Classification: alterative, antibacterial, astringent, bitter tonic, cholagogue/choleretic, laxative

Tag Alder bark is used in many ways and, according to Olbrechts, was one of the few plants cultivated by Cherokee “doctors”. A decoction of the bark is used as a mouthwash for thrush and it is combined with Wild Cherry bark, Black Walnut, and Persimmon bark for toothache and abscesses of the gums (Hamel & Chiltoskey, 1975). The bark is also used as an eyewash for conjunctivitis, as a sitz bath (with Dewberry leaf and Pine bark) for hemorrhoids, and as a tea for colds, coughs, gastritis, stomachaches, urinary tract infections, and as a blood tonic and digestive stimulant. The cones, made into a tea, are used for colds, sore throats, and fevers. In clinical practice, I use *Alnus* orally and topically for large red painful pimples (comedones) on the back, neck, or buttocks which do not come to a head, acne rosacea, impetigo, and boils. I also use it to stimulate bile secretion and bowel function and find it highly effective for constipation with clay colored stools, poor fat digestion, and biliary dyskinesia. Mixed with Licorice, Goldenseal and Plantain, it can help heal gastric ulcers.

Dosage: Tea: 1-2 tsp. dried bark, 8 oz. water, decoct 10 minutes, let steep 1/2 hour. Take 4 oz. three times per day.

Tincture (1:5): 50% ETOH, 1.5-2 mL QID

Tulip Tree root bark (*Liriodendron tulipifera*) Taste: acrid, bitter Energy: warm, dry Western Classification: analgesic, anti-inflammatory, astringent, bitter tonic, diaphoretic

Tulip Tree or Tulip Poplar is a large, straight growing member of the Magnolia family. Its yellow, green and orange flowers are large and showy and they mature into a densely packed cone of winged seeds. The smooth young bark harvested in the spring makes a wonderful basket perfect for gathering herbs or berries. The root bark is used as a medicine for periodic fevers (combine it with Boneset, Dogwood and Magnolia barks), diarrhea, as a digestive aid (use it with Angelica root and Artichoke leaf) and for rheumatic pain. T.J. Lyle, MD, the prominent physiomedicalist physician, stated the fresh bark was more active than the dried bark. He used a tincture of the fresh bark as a nervine for irritability and hysteria, to treat dysmenorrhea (with Valerian, Blue Cohosh and Prickly Ash), as a cough remedy (with Wild Cherry bark or Spikenard) and to promote digestion. In an in vitro study 6 aporphine alkaloids were identified from *Liriodendron* bark and two sesquiterpene lactones from the leaf, all of which had significant antispasmodic activity (Graziose, et al, 2011). This suggests its traditional use for treating periodic fevers (malaria, Dengue) may be valid. Other laboratory studies found a Tulip Tree bark extract inhibited biofilm formation in *Staph aureus* (Dettweiler, et al, 2019) and alkalamides in the root exhibited significant anti-inflammatory activity (Park, et al, 2021). The decoction of the dried bark is used as a bath for fractures, sprains, and hemorrhoids.

Dosage: Tea: 1-2 tsp. to 8 oz. water, decoct 20 minutes, steep 1 hour. Take 4 oz. 3 times per day.

Wild Indigo leaf/root (*Baptisia tinctoria*) Taste: acrid, bitter Energy: cold, dry Western Classification: alterative, antibacterial, anti-inflammatory, cathartic (overdose), cholagogue, emetic (overdose), laxative, vulnerary

Baptisia has been used by native peoples for toothaches, to stop vomiting, for arthritis, as a laxative, and topically for painful swellings (Moerman, 2004). Early American physicians such as Barton, Thatcher, and Eberle mention its use topically and internally for conditions with mortification of tissue and the early onset of gangrene (Porcher, 1970). The Eclectics further elaborated on these uses and developed the full description of this herb’s uses. The black letter symptoms for Wild Indigo are “tissue that looks like raw meat, or that has a bluish, leaden, or dusky hue, with a foul muco-purulent discharge. The Eclectics often used this herb to treat gangrene, septicemia and typhoid fever. Clinically I use it in small amounts for treating Crohn’s disease, dysentery, ulcerative colitis, cellulitis, septicemia, putrid sore throat (quinsy), purulent otitis media, and advanced cervicitis (as part of an intra-vaginal application). *Baptisia* works well with Echinacea, Myrrh, and Goldenseal. Topical applications (as well as taking this herb orally) can be of great benefit for poisonous spider bites (I use it with Echinacea and Plantain for brown recluse spider bites), venomous snakebites, decubitus ulcers, and gangrene. Overdose of this herb can cause nausea, vomiting, diarrhea, headaches, and gastric irritation. In a laboratory study, both water and 50% ethanol extracts of the root exhibited a strong anti-inflammatory effect (Sultanov, et al 2022).

Dosage: Fresh tincture (1:2): 50% ETOH, .25-.5mL 3-4 times per day

Yellow Root (*Xanthorhiza simplicissima*) Taste: bitter Energy: cool, dry Western Classification: antibacterial, antifungal, antiseptic, bitter tonic, cholagogue/choleretic

Yellow root is a shrubby berberine-containing plant that is found growing along branches and springs. It is abundant throughout the southeast and is regularly substituted for the increasingly scarce Goldenseal. *Xanthorhiza* is milder than *Hydrastis* but is more appropriate for long-term use. It is especially effective to stimulate digestion and liver function in people with sluggish bowels, a tendency towards hemorrhoids and faulty fat digestion. The tea can be used for urinary tract infections, bacterial diarrhea, or ear infections (as an earwash). Mixed with Alder Bark, Yellow Root is an effective treatment for *Candida albicans* infections of the mouth (thrush), vagina (vaginal candidiasis), bowel or skin. The tea makes a soothing gargle for strep throat, aphthous stomatitis, ulcerated mucous membranes, herpes and periodontal disease. Externally it is useful for bedsores, bleeding hemorrhoids, ringworm and athlete's foot. A saline eyewash is effective for treating conjunctivitis and blepharitis.

Dosage: Tea: 1-2 tsp. dried root to 8 oz. of water. Decoct 10 minutes, steep 1 hour. Take 2 cups per day.

Tincture (1:5): 50% ETOH, 1-2.5 mL TID/QID

Introduced Species (often invasive)

Cogon Grass rhizome (*Imperata cylindrica*) Taste: sweet, bland Energy: cold, slightly moist Western Classification: antibacterial, antihemorrhagic, anti-inflammatory, diuretic, immune tonic

Bai Mao Gen is the rhizome of a large weedy grass that has become a seriously invasive weed in the southeastern U.S. It is important that we encourage the use of such plants to reduce their spread and preserve slow growing native plants. The rhizome cools the blood and acts as an antihemorrhagic agent. It is effective by itself (in large doses) or combined with other hemostatic herbs (Tienqi, Agrimony, Biota leaf/twigs, or Yarrow) for hemoptysis, menorrhagia, epistaxis, blood in the stool, or gastric bleeding. It is a soothing diuretic and can be used for cystitis, hematuria (it is especially effective for blood in the urine), nephritis, dysuria, to enhance uric acid excretion, and for damp-heat jaundice (use it with *Lysimachia*/*Jin Qian Cao*, *Artemisia capillaris*/*Yin Chen Hao*, and *Gardenia*/*Zhi Zi* fruit). It also clears heat from the lungs and stomach and can be useful for dry coughs, hot/dry asthma, and thirst (use it with *Anemarrhena*/*Zhi Mu* and *Phragmites* rhizome/*Lu Gen*) or vomiting, hematemesis, and nausea (use it with *Artichoke* leaf, Yarrow, and Goldenseal). *Imperata* is used in China along with *Oldenlandia*/*Bai Hua Shi Shi Cao*, *Ophiopogon*/*Mai Men Dong*, *Adenophora*/*Nan Sha Shen*, Chinese Solomon's Seal, and several other herbs for treating esophageal and nasopharyngeal cancers. In animal and laboratory studies, Cogon Grass rhizome has been shown to reduce LDL-C and blood sugar levels, inhibit various cancers and prevent kidney stone formation (Jung, et al 2021).

Dosage: Tea: 1-2 tsp. dried rhizome, 10 oz. water. Decoct 15-20 minutes, steep 30 minutes. Take 8 oz. TID

Tincture: 1:4, 27.5% alcohol, 3-5 mL TID/QID

Extract granules (2.5:1): 1.5 g, 1-3 times per day mixed in water.

Glossy Privet/Nu Zhen Zi fruit (*Ligustrum lucidum*) Taste: sweet, slightly bitter Energy: slightly neutral, moist Western Classification: anti-inflammatory, antioxidant, immune tonic, yin tonic

This small shrubby tree is native to China and has been used in the US as an ornamental plant. It also seems to easily escape cultivation and has become a potential weed in Maryland, most of the southern states (so far it is not found in Tennessee), and California. The fruit, known as Nu Zhen Zi, is a common tonic medicine in TCM. It is used to strengthen the Chinese liver and kidney yin. In doing so, it can be helpful for low backaches, lumbago, weak knees, impotence, and visual problems. It is commonly used in Fu Zheng formulas as it prevents radiation or chemotherapy-induced suppression of white blood cells. It also promotes T-cell function and competence, as well as preventing tumor-associated macrophage suppression. I use Chinese Privet fruit with *Shatavari*, *Processed Rehmannia*, *White Peony*, and *Licorice* for menopausal symptoms (hot flashes, brain fog, vaginal dryness, mood swings, palpitations) and for female infertility. The herb is also commonly used to enhance bone density and to help prevent or treat osteoporosis (Chen, et al, 2017).

Dosage: Tea: 1-2 tsp. dried fruit, 10 oz. water, decoct 15-20 minutes, steep 1 hour. Take 2 cups

per day.

Tincture (1:5): 60% ETOH, 1-2 mL TID

Extract granules (5:1): 1 g, 1-2 times per day mixed in water

Kudzu root or flower (*Pueraria lobata*) Taste: sweet, acrid Energy: cold, moist Western Classification: antihistamine, anti-inflammatory, antispasmodic, demulcent

Kudzu (Ge Gen) was introduced into the U.S. in the 1880's as an important and versatile economic plant. Later, in the 1930's, it was promoted as a way to control erosion. As a means of controlling and preventing erosion, the plant is an incredible success. It is also successful in destroying native herbs, shrubs, and trees and creating environmental havoc throughout the Southeastern U.S. The means to controlling this highly aggressive plant is to use it, a lot of it. Multiple parts of the plant can be used for medicine, food, animal fodder and for fiber. The root as a tea is used in Chinese medicine for colds or influenza with fever, dry mouth, headaches, and muscle stiffness of the head and back. It is also useful for head colds, sinus congestion, and sinus headaches. Its antispasmodic actions make it effective for torticollis (wry neck), irritable bowel syndrome (IBS) with diarrhea, leaky gut syndrome, and for ischaemic heart disease, especially angina. In an RCT, menopausal women were given Kudzu root extracts at several doses. Those receiving 2 capsules TID had significant reductions in bone resorption, cartilage degradation and menopausal symptoms. (Bihlet, et al, 2021). Animal research on Kudzu found that the decoction of the root reduces alcohol cravings in Syrian golden hamsters and it has a similar but moderate effect in humans (Lukas, et al, 2012; Lukas, et al, 2005). In China the flowers were traditionally used for a related purpose, treating alcohol poisoning (hangovers). In TCM Ge Gen is also used for thirsting and wasting syndrome (usually diabetes) and for enhancing bone density. Other parts of the plant have uses as well.

The leaves can be eaten as fodder, especially by goats, and they are used as poultices for wounds. In Japan, the root starch is used as a thickening agent in cooking. In the macrobiotic system Kuzu (Kudzu) starch is used to lower fevers and allay gastric irritation. Finally, the stems can be used to make fiber and can be woven into beautiful and durable baskets.

Dosage: Tea: 2 tsp dried root, 8 oz. water. Decoct 30 minutes, steep 30 minutes.

Take 4 oz. TID

Tincture: 1:5, 30% alcohol, 40-60 gtt. TID (not appropriate for reducing alcohol cravings)

Capsule: 2 capsules twice per day

Extract granules (5:1): 2 g, 1-2 times per day mixed in water

Mimosa bark or flower (*Albizia julibrissin*) Taste: sweet Energy: neutral Western Classification: analgesic, antidepressant, antioxidant, anxiolytic, nervine, vulnerary

Albizia bark calms the shen, it is an antidepressant, mood elevator, and anxiolytic. It relieves stress and is a very useful nervine for insomnia, palpitations due to anxiety or anger, impaired memory, PMS mood swings, pent-up emotions, and irritability. It helps make people feel calm and happy and, according to animal studies, its antidepressant effect works via the 5-HT(1A) receptor system (Kim, et al, 2007), as well as inhibiting HPA axis hyperactivation, neuroinflammation and up-regulating BDNF (Huang, et al 2023). I use it with Rose petals and Hawthorn flowers/berries for treating broken hearts, chronic grief or sadness, post-traumatic stress disorder, and stagnant depression. For stagnant depression (chronic situational depression), use it with Rosemary, Holy Basil, Damiana, or Lavender. The flowers can also be used for similar purposes, but they are milder than the bark. I use the flowers for moody, sad or fearful children, weak, asthenic adults and the frail elderly. In TCM the bark is known as He Huan Pi and it is used to move blood and relieve pain, swelling, and inflammation from trauma injuries (bruises, sprains, and fractures). Use it with Safflower, Myrrh, Frankincense, or Tienqi. It can be used orally and topically.

Dosage: Tea: 1-2 tsp of the dried bark, 8 oz hot water. Decoct 10 minutes.

Take 4 oz. TID

Tincture: 1:5, 30% alcohol, 2-4 mL TID

Extract granules (10:1): 0.5 g, 1-3 times per day mixed in water

Peach Tree twigs or leaf (*Prunus persica*) Taste: bitter Energy: cool, dry Western Classification: antiemetic, antispasmodic, antitussive, diuretic, mild laxative

The Spanish introduced the Peach into the southern US in the mid-1500s. By the time the English met with the Southeastern native people in the late 1600s, they had extensive Peach orchards and prized Peaches as a desirable and delicious food. While the fruits are a delightful fresh or dried fruit, it is the twigs or leaves that are medicinal. Peach leaves and twigs contain cyanogenic glycosides (like Wild Cherry bark, and Loquat leaf) which, when fresh, are slightly toxic, when wilted are much more toxic, and when dried are non-toxic (in normal doses). All of these plants when properly prepared act as antispasmodics and Peach twigs/leaves are no exception. While Cherry Bark and Loquat act primarily as antitussives. Peach most distinctly affects the digestive system and to some degree the respiratory system as well. Peach has a long history of home use and was also used by Thomsonian, Physiomedical, and Eclectic physicians. The black letter symptoms are irritation of the stomach with persistent nausea and vomiting and a red pointed tongue. It can be used for gastritis, inflammatory diarrhea, IBS, dyspepsia, and gastroenteritis. It can also be used for the hard, dry cough of bronchitis, and for irritation of the urinary tract especially spastic bladder. In TCM, peach kernels (tao Ren) are used to move blood.

Dosage: Leaf tea: 1 tsp. freshly dried leaf, 8 oz. room temperature water, let steep 1 hour.

Take 1/2-1 tsp. every 2 hours

Twig tea: 1 tsp. freshly dried twigs, 8 oz. room temperature water, let steep 1 hour.

Take 1/2-1 tsp. every 2 hours

Tincture (1:5): 30% ETOH, .25-.75 mL TID/QID

Extract granules (Tao Ren) (10:1): 0.5 g, 1-2 times per day mixed in water

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