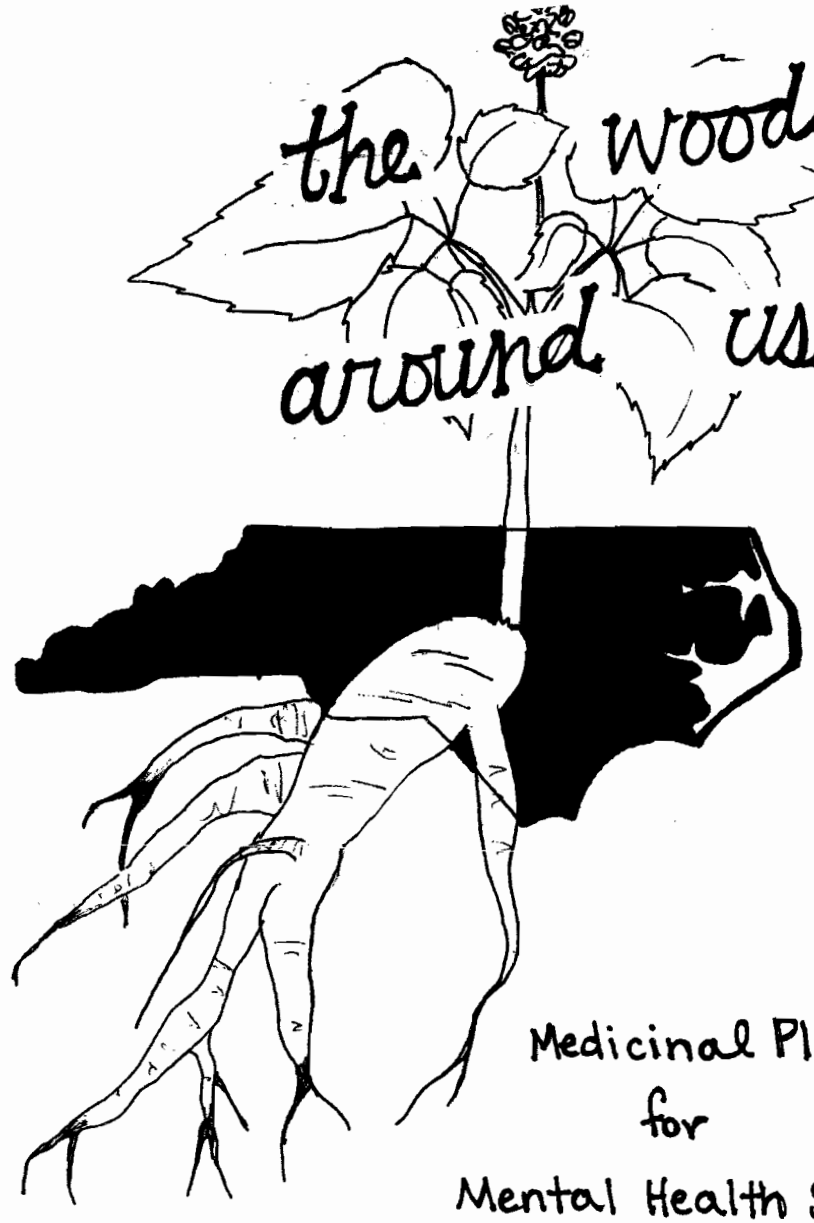
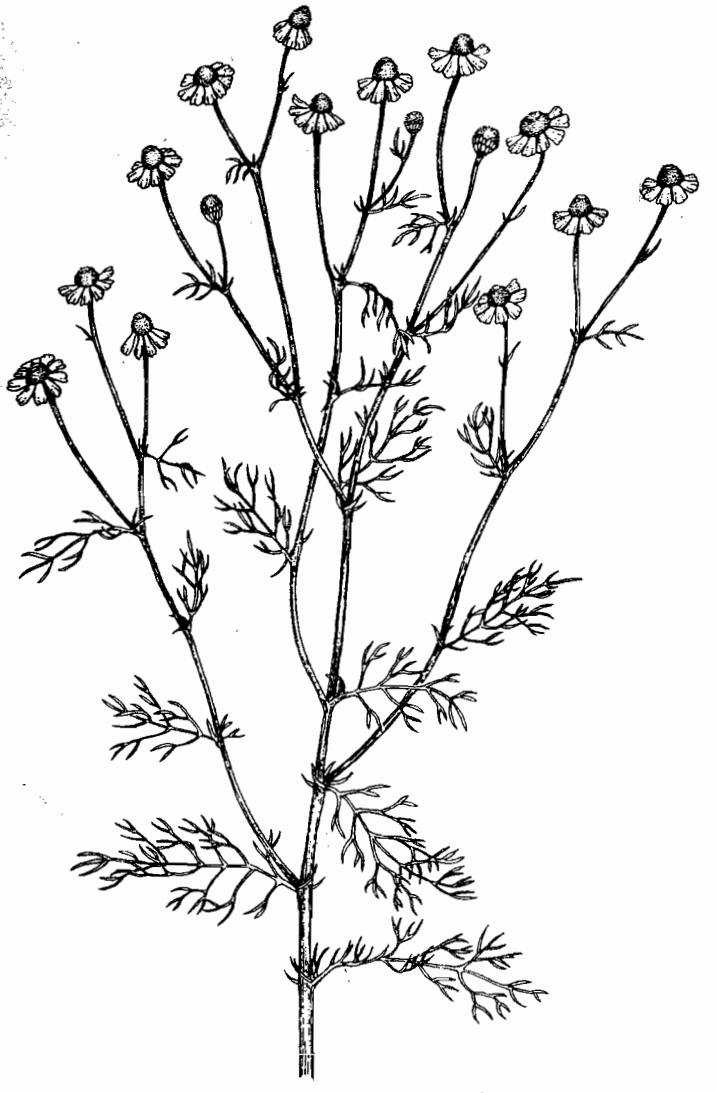
healing in the woods around us



Medicinal Plants
for
Mental Health Support



Chamomile (Matricaria recutita)

Another one of my favorites. It's easy to find in stores & pretty easy to grow. Smells delicious! It's calming & a very mild sedative.

Great in tea!

notes:

Healing in the Woods around Us:

Medicinal Plants of the NC Piedmont

for

Mental Health Support

by Molly

get in touch! I'd love to learn more from yall & hear your thoughts!

bailandochispa@yahoo.com

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> "The most important act of healing for me is being deep in the woods. The color green and the smells of dirt and rain. I realize that we are a part of this wilderness and it has given us the tools to heal from the insanity around us" (Becca 2008).

In the following pages, I will introduce a few of the many tools for mental health and well-being that grow in pockets of forest tucked between our cities, along the streets we walk, and literally in our back yards. These plants were used for centuries by the Native Americans and early communities of European settlers and enslaved Africans. The knowledge of these plants and their uses remains a source of pride and cultural identity for many of these communities. These plants not only carry with them their valuable medicinal properties, but also stories and connection to the past. They can help ground us to this land in which we live. In addition to many other excellent resources, I have cited extensively from the book *The Cherokee Herbal*. I believe medicine is even more powerful when we draw from our local traditions as well as our local plants. I would like to recognize the rich history and wisdom of the many communities that have appreciated the plant medicines around us for far longer than we have had the science to prove their effectiveness.

Herbalist David Winston begins to articulate the importance of locating root causes of dissatisfaction and stress for successful treatment of depression and other mental health issues.

> "We live in a very stressful, complicated, and often confusing world. Our expectations of ourselves, our significant others, our children, and our lives are enormous. Many of us live isolated lives, with unfulfilling relationships and careers. It is not uncommon for people to feel empty, with no direction, no realistic goals ... struggling to make ends meet and feeling a very real sense of desperation and hopelessness. If this is truly someone's life, then I would suggest that depression is a very sane and rational response to the life and

circumstances that person lives in. People in good relationships, people with a sense of purpose, people with a deep spiritual connection are more resistant to depression" (Winston 2007).

While depression, anxiety, insomnia and stress can be very serious conditions that necessitate medical intervention, the steps that individuals can take to improve their own mental health often get overlooked. In this chaotic world in which we live, finding connection to the land around us and building upon our own strengths and knowledge can be very healing. Spending time gathering the plants we need for our health care and learning how to distinguish one green sprig from the next, allows us to see our environment differently. Taking an active role in the maintenance of our health can facilitate opportunities to make deeper connections to ourselves, each other and the land. Lastly, for many of us, just a walk in the woods can be incredibly calming and fulfilling.

While I have tried to present a thorough discussion of each plant, this is not a complete list nor could I include every contraindication or identifying characteristic. Let this be one step of many in getting to know the plants around you and exploring their uses. Because plants are not made in laboratories, their strength and appearance can vary significantly – never consume a plant if you have any doubts about what it is and look to the many other written resources or consult an herbalist for more information about appropriate dosages and interactions with other herbs and pharmaceuticals.

All seven of the highlighted plants are found in Orange County, NC and are either native to the region or have naturalized in the area. The rest of the plants I mention grow wild or can be cultivated here in North Carolina. With the exception of *Pedicularis canadensis*, all of the plants can be found at most local natural-foods stores and co-ops.

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A FEW FORMULAS

These are combinations of herbs found in the cited resources. Most were discussed as well in previous pages. While all of the herbs listed in these formulas are not toxic, since I am not an herbalist myself, I am not qualified to recommend any particular regimen. This is just to give you an idea of where to **begin** For more information on dosages, see the *Handbook of Medicinal Herbs* by James A. Duke or consult an herbalist.

For heartache, broken hearts, grief or related depression:

- Hawthorn, Passionflower, Mimosa, Rose petals (Winston 2007)

To calm a nervous mind and aid in sleep:

- Lemon Balm, Lavender, and Skullcap or Valerian (Garrett 2003).
- Passionflower, Chamomile, Peppermint, Hops and Hawthorn are also mentioned throughout for this use.

For depression related to the seasons, perhaps a good winter tea:

- Lemon Balm, Lavender and St. John's Wort (Winston 2007)

To open the heart and relax the body when entering into difficult situations:

- Pedicularis and Skullcap (Becca 2008)

Ginseng (*Panax quinquefolius*)
Araliaceae (Ginseng Family)

> "[Ginseng] gives an uncommon warmth and vigor to the blood. It cheers the heart of a man that has a bad wife, and makes him look down with great composure upon the crosses of the world. It will make old age amiable by rendering it lively, cheerful, and good humored."
>
> – Colonel Byrd, in his *History of the Dividing Line*
>
> (The Foxfire Fund Inc 1975)

For centuries, communities around the world have recognized ginseng as a strong medicine and important component of their cultural identity. Traditional Chinese Medicine (TCM) uses Chinese Ginseng (*Panax ginseng*) for many patients with symptoms of depletion. American Ginseng (*Panax quinquefolius*), once abundant throughout the Eastern United States and especially the Appalachian Mountains, is not as stimulating as *Panax ginseng* and according to David Winston, therefore safer for regular use and a better choice for younger people (2004).

The etymology of this plant's names suggests its reputation as a widely useful and powerful medicine. In Chinese, the words gin and seng, meaning man and essence respectively, represent the ideogram "crystallization of the essence of the earth in the form of a man" (Ernst et al. 2001). The scientific name, *Panax*, comes from the Greek words pan and akos, meaning "cure-all" (Ernst et al. 2001). As a well-known adaptogen, ginseng is useful for dealing with stress and balancing the body (Garrett 2003). One source differentiates its use for both short-term and long-term conditions. In the short-term, ginseng is useful "to improve stamina, concentration, healing process, stress resistance, vigilance and work efficiency in healthy individuals" (Barnes 2002). When used over a longer period of time, ginseng can "improve well-being in debilitated and degenerative conditions especially those associated with old age" (Barnes 2002). In Cherokee Medicine,

ginseng was also noted as a useful medicine for the elderly (Garrett 2003).

Because of ginseng's adaptogenic properties and reputation for stress relief, it can be useful in treatment of certain kinds of depression. As an adaptogen, ginseng works on many fronts. It is reputed to strengthen and stimulate the immune system, stimulate the appetite, and improve the sleep of patients. Clinical studies documented the use of ginseng as a tonic and showed improvement in the emotional stability of the patients among other factors (Barnes 2002). In the treatment of depression, adding adaptogens, like ginseng, to a formula can increase its immediate and long-term effectiveness (Winston 2007).

Studies have isolated compounds in ginseng called ginsenosides and propose this to be the primary active constituent of the plant. Ginsenosides act on the adrenal and pituitary glands, stimulating the release of hormones that "are known to play a significant role in the adaptation capabilities of the body" (Barnes 2002). These compounds increase in concentration between the fourth and fifth year, adding to the importance of harvesting this plant later in its life (Foster 2000).

There is also some discussion of ginseng for female concerns. In the early 19th century, European colonists used a decoction of ginseng with chamomile flowers (*Matricaria recutita*) for women who felt faint (The Foxfire Fund Inc 1975). It was also used in Cherokee medicine after childbirth to help women regain their strength (Garrett 2003).

Adaptogens

The term adaptogen refers to a substance with the following general properties:

1. "The substance is relatively non-toxic to the recipient.
2. An adaptogen has 'non-specific' activity and acts by increasing resistance of the organism to a broad spectrum of adverse biological, chemical, and physical factors.
3. These substances tend to help regulate or normalize organ and system function within the organism." (Winston 2004)

Mimosa (*Albizia julibrissin*); Fabaceae (Pea or Legume Family)

David Winston mentions this tree, another species introduced to the United States, as a possible adaptogen, antidepressant and nervine (2004). For depression, Winston uses both the flowers and the bark and remarks that it is a "superb mood-elevator" (2004). Mimosa was mentioned with hawthorn for broken hearts and grief.

Motherwort (*Leonurus cardiac*); Lamiaceae (Mint Family)

Motherwort has actions very similar to lemon balm and can be used with similar herbs. Both the scientific name and the common name hint at the traditional uses of this plant. "Cardiaca" refers to the heart and the use of motherwort for "cardiac debility, simple tachycardia ... [and] cardiac symptoms associated with neurosis" (Barnes 2002). As "motherwort" suggests, this is an herb that has also been frequently used for mothers and other female concerns. According to Cherokee history, motherwort came from the Iroquois and was used to treat "the cramp and weak hearts of women" (Garrett 2003). In addition to sedative and nervine properties, motherwort is reputed to be oxytocic and uterotonic (Barnes 2002).

Valerian (*Valeriana officinalis*); Valerianaceae (Valerian Family)

Valerian does not grow wild in North Carolina, though it could probably be cultivated. The root of valerian is used in infusions and tinctures as a strong sedative and sleep aid (Winston 2007).

For other useful adaptogens, see David Winston's article, "Harmony Remedies: An Overview of Adaptogens" (Winston 2004).

ADDITIONAL HERBS OF INTEREST

Hops strobile (*Humulus lupulus*); Cannabaceae (Hemp Family)

Hops is reputed as a sedative and used in conjunction with other sedatives such as chamomile (*Matricaria recutita*), valerian (*Valeriana officinalis*), or catnip (*Nepeta cataria*) (Garrett 2003 and Winston 2007) David Winston also mentions its use, specifically for nervousness, anxiety and irritability (2007). Hops is not native to North Carolina but can be easily grown.

Lavender (*Lavandula angustifolia*); Lamiaceae (Mint Family)

Introduced from Europe and now commonly found in herb gardens, lavender is useful in conjunction with other herbs for sleep difficulty and mild depression. According to Winston, lavender is particularly effective for "stagnant depression – the patient is fixated on a specific traumatic event," or when the patient feels "that he/she is in a fog" and has a hard time thinking (2007). Lavender is often used with St. John's wort, holy basil (*Ocimum sanctum*), and rosemary (*Rosmarinus officinalis*) (Winston 2007).

Milky Oats (*Avena sativa*); Poaceae (Grass Family)

The "milky" description of milky oats refers to a certain stage of the plant's spikelet. The fresh milky oat seeds are known throughout herbal medicine as a tonic or amphoteric for the nervous system. David Winston and other sources recommend the use of milky oats with adaptogens and as part of formulas for depression, especially for individuals who are "emotionally brittle from chronic stress" (2007). *Avena sativa* was introduced to North America from Middle East and is now cultivated throughout the United States, including North Carolina, for human and livestock consumption.

IDENTIFICATION

Ginseng is also known throughout the Appalachians as sang or five-fingers (Garrett 2003).

In the *Peterson Field Guide to Eastern/Central Medicinal Plants and Herbs*, *Panax quinquefolius* is described as follows:

> Perennial; 1-2 ft. Root fleshy, sometimes resembling human form. Leaves palmately divided into 4-5 leaflets [this gives it the name five-fingers]. Flowers whitish, in round umbels; June-July. Fruits are 2-seeded red berries. The rhizome at the top of the root, often referred to as the neck, reveals annual scars left by the year's leaf stem.
> (Foster 2000)

According to contributors for Foxfire 3, "it grows mainly in well-drained upland hardwoods, mixed stands of maple, basswood, butternut and rock elm, or on the shady side of deep gullies where there is a transition in timber and the vegetation mixes' and 'appears plentifully on the north exposure of the hill, growing out of the rich, mellow, humid earth, amongst the stones or fragments of rocks' (The Foxfire Fund Inc 1975). Ginseng sometimes grows with poison ivy (*Toxicodendron radicans*) (Garrett 2003), maidenhair fern (*Adiantum*), baneberry (*Actaea*), spikenard (*Aralia racemosa*), blue cohosh (*Caulophyllum*), yellow lady slipper (*Cypripedium*) or goldenseal (*Hydrastis canadensis*) (The Foxfire Fund Inc 1975).

PREPARATION

The root is harvested for medicinal use when the plant is around seven years old. It should be dug in the fall to ensure that the root shrinks as little as possible when it is dried (The Foxfire Fund Inc 1999). The age of the plant can be determined by counting leaf scars on the rhizome (Foster 2000) or more approximately, by the number of "prongs" at the end of the stem. Each prong ends in a compound leaf and as explained by Lake Stiles to Foxfire students, every few years, the plant grows a new prong. According to Stiles, an older plant can grow up to four or five prongs if left long enough (The Foxfire Fund Inc 1975).

Ginseng is prepared in many forms included infusions, decoctions, tinctures and capsules.

IS GINSENG DISAPPEARING?

"Sanging" became a popular and lucrative practice in the 1700's and today continues throughout the Appalachians and into Canada. Although there have been many moves to create ginseng gardens and beds to produce ginseng for the herbal medicine market, these gardens have not been enough to feed the international demand for this plant. The wild ginseng also retains a reputation for higher quality and gets a higher price on the market (The Foxfire Fund Inc 1975). It is important to also take notice of the incredible environmental devastation that is occurring throughout parts of the Appalachians as a result of coal mining, especially the practice of mountain top removal mining. In West Virginia alone, mountain top removal mining buried more than 300,000 acres of forest in the last decade (Mountain Justice … [updated 2008]). This is more than land than any sanger could ever cover. Today *Panax quinquefolius* is listed as a special concern, vulnerable, threatened or endangered in Connecticut, Maine, Massachusetts, Michigan, New Hampshire, New York, Pennsylvania, Rhode Island, Tennessee and North Carolina (PLANTS … Panax… [updated 2008]). Because of over-harvesting and the threat to ginseng's habitat, it is particularly important to be conscious of how you gather this plant. The loss of wort brings us a great example of synergy of different chemical compounds" (Foster 2000). The concept of synergy, described by Wendy Applequist as "the phenomenon … where the interaction of two or more agents results in a combined effect that is greater than the sum of the individual parts," (2006) is important to keep in mind when discussing the action of medicinal plants. While modern science and technologies allow us to dissect plants into their various chemical compounds, taking an isolated compound alone is not likely to achieve the same result as taking an entire plant, or multiple plants, with many phytochemicals and compounds that work together in ways we may not yet know. In fact, it is often suggested that it is the combined work of this unique mix of phytochemicals that allows many herbal remedies to be nearly as effective (and sometimes more effective) as pharmaceuticals, but without the side effects.

(Applequist 2006)

IDENTIFICATION

Some sources suggest that St. John's wort's effectiveness as an antidepressant comes in part from the sight of the plant alone. James Duke says of the plant, "Its star-shaped yellow flowers, which turn red when bruised, are beautiful enough to make anyone with the blues feel happier" (Duke 1997). A Cherokee elder also speaks highly of the flowers as "golden yellow sparklers that get your attention" (Garrett 2003). These flowers bloom around the 24th of June, St. John's day, giving the plant its common name "St. John's wort" (Duke 1997).

Additional characteristics useful for identification include the following:

> Perennial; 1-3 ft. Leaves oblong, dotted with translucent glands. Flowers yellow, stamens in a bushy cluster, 5 petals with black dots on margins. (Foster 2000).

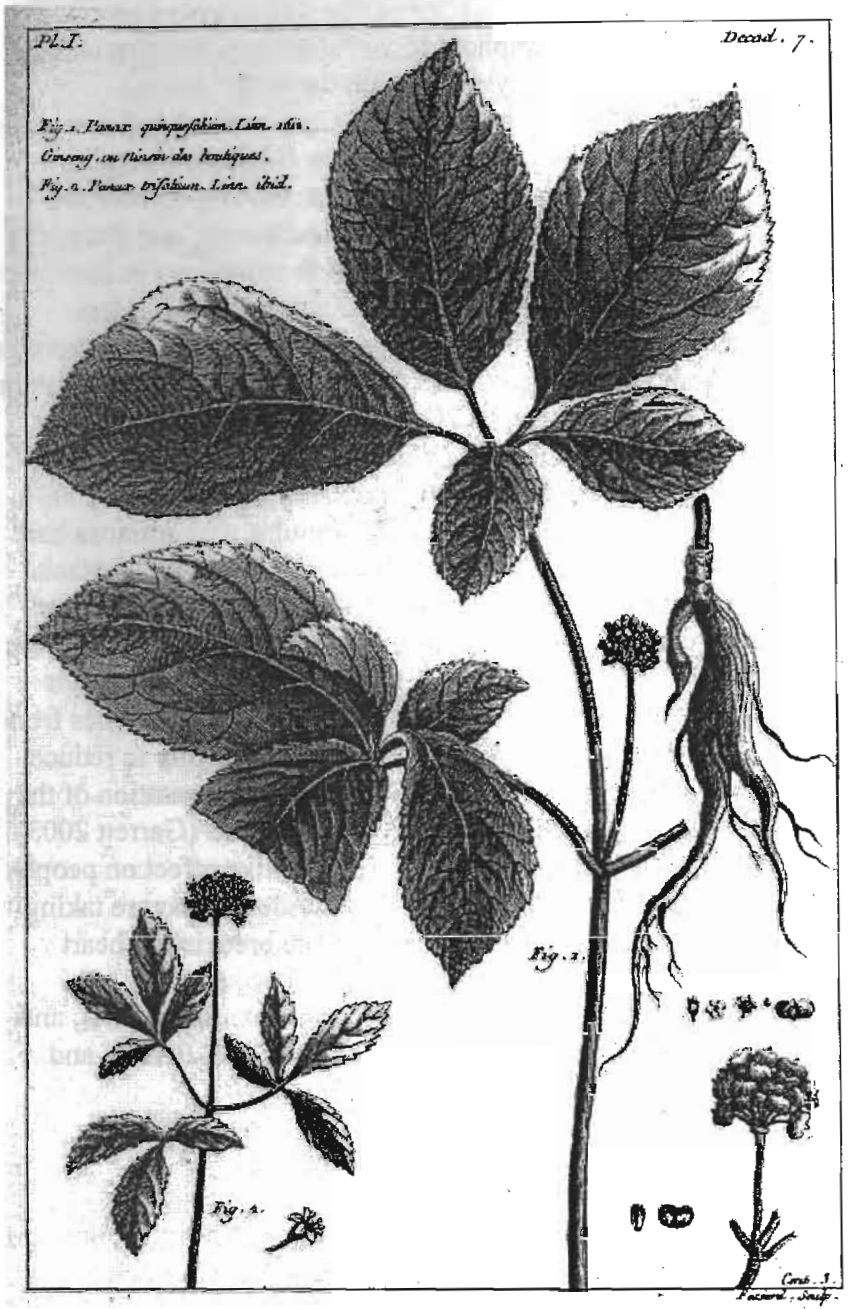
The plant is commonly found in open woods, along roads and fields (Foster 2000).

PREPARATION

The fresh flowers are most frequently prepared in a tincture or infusion for the treatment of depression and related conditions. Clinical trials proved this plant as safe and it can be used (and is in fact more effective) consistently over a long period of time.

ACTIVE CONSTITUENTS & SYNERGY in *Hypericum perforatum*

As a result of the many studies and popularity of St. John's wort, a good deal of attention has been paid to identifying the active components of the herb. Most current sources suggest hypericin and hyperforin to be most responsible for the antidepressant actions (Barnes 2002). More discussion of exactly how these compounds behave in the body when isolated can be found in other resources. While the focus is directed to these two constituents, the *Peterson Field Guide* reminds us that, "St. John's ginseng would be devastating to the communities that depend on it for its medicinal, economic and cultural value.



(Antiquariaat Jan Meemelink).

Hawthorn (*Crataegus spp.*)
Rosaceae (Rose Family)

Hawthorn is an amphoteric, or "substance that normalizes function of an organ or a system within the body" for the cardiovascular system (Winston 2004). Clinical studies have documented the effectiveness of hawthorn for treatment of a variety of heart conditions such as "cardiac failure, myocardial weakness, paroxysmal tachycardia, arteriosclerosis, and Buerger's disease" (Barnes 2002). Herbalists and folk remedies use hawthorn in treatment of these and similar conditions as well as in less specific afflictions of the heart. In Cherokee medicine, hawthorn is used as a "tonic for the heart" and to treat a "feeling of tightness or pressure in the heart" (Garrett 2003). It was sometimes used in formulas with Flaming Azalea (*Rhododendron calendulaceum*), Passionflower, and Hazel Alder (*Alnus serrulata*) (Garrett 2003). David Winston mentions hawthorn in formulas with mimosa bark (*Albizia julibrissin*) and rose petals (*Rosa* spp.) to treat heartache and mild depression (2007). The notion that the same plant used to relieve irregularities in heartbeat can also be used to open the heart of a person who is grieving may be hard for some to wrap their heads around. Perhaps the feeling of relief in the heart comes from hawthorn's effect as a coronary vasodilator and ability to reduce blood pressure (Barnes 2002). There is also documentation of the use of hawthorn among the Cherokee as a relaxant (Garrett 2003). This could also contribute to hawthorn's positive effect on people with heartache. With the exception of individuals who are taking certain pharmaceuticals for the heart or have preexisting heart conditions, hawthorn is generally thought to be safe.

The berries are also a good source of vitamins C, B_{12}, and B_6, thiamine, riboflavin, niacin, folic acid, choline, PABA, and flavonoids (Brill 1994).

IDENTIFICATION

There are many species of hawthorn in North Carolina and their characteristics vary widely. However, some commonalities help identify these plants.

St. John's Wort (*Hypericum perforatum*)
Clusiaceae (Mangosteen Family)

Studied extensively for its antidepressant effects, St. John's wort has made its way into the arena of Western medicine more than many other medicinal plants and definitely more than any other herbal remedy for depression. It does indeed have antidepressant properties, as well as sedative, anti-inflammatory and antibacterial properties (Foster 2000). Historically, St. John's wort has been used for "excitability, neuralgia, fibrositis, sciatica, wounds, menopausal neurosis, anxiety and depression" (Barnes 2002). Because of its antibacterial and anti-inflammatory properties, the Cherokee found it useful for the treatment of wounds (Garrett 2003). It continues to be used today for mild to moderate depression, Seasonal Affective Disorder (SAD), fatigue and depletion, anxiety and sleep problems, and conditions related to menstruation (Barnes 2002). David Winston mentions St. John's wort's use for mild to moderate and situational depression with patients who have "a dyspeptic outlook, a sour stomach, and a sour attitude" (2007).

Clinical studies have proven St. John's wort's positive effect on sleep and sleep quality as well (Barnes 2002). Either alone or in formulas with other herbs for depression and insomnia, the potential of St. John's wort to improve sleep would likely have a positive effect on the overall mental health and well-being of the patient.

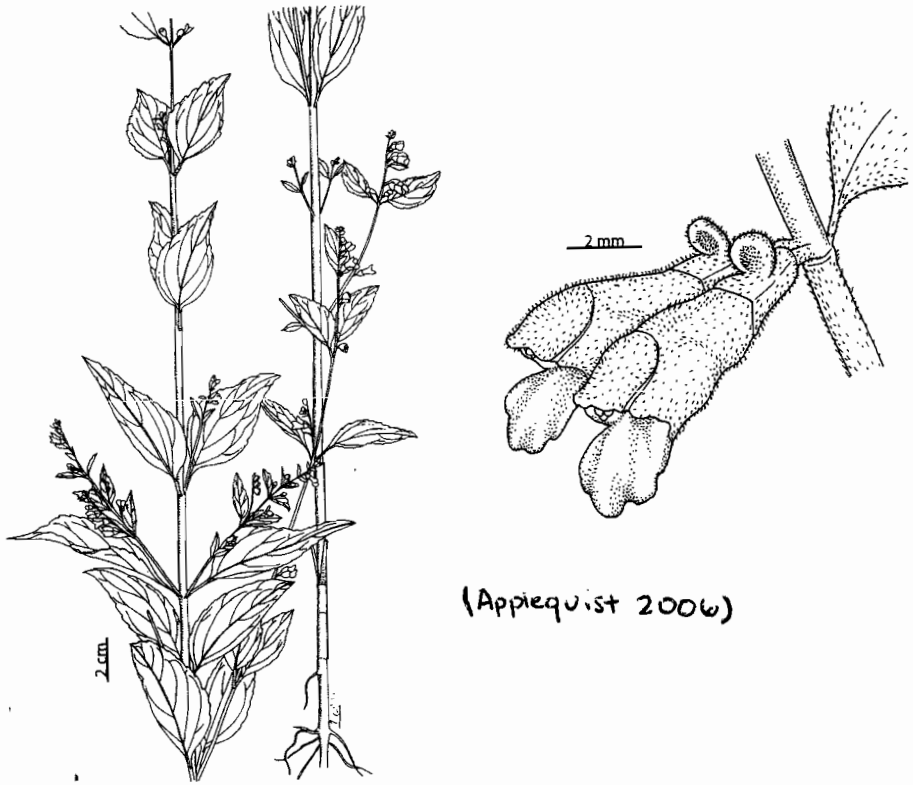
St. John's wort in combination with black cohosh (*Actaea racemosa*), was found to be effective for treating premenstrual syndrome (Barnes 2002). The exact symptoms that this formula treats are unclear. The Cherokee also used St. John's wort to ease menopausal conditions, especially anxiety, short-temper, and moodiness (Garrett 2003).

PREPARATION

The entire herbaceous part of skullcap can be used. The fresh herb is made into tinctures and dry or fresh, the herb can be prepared as an infusion. However, in the drying process, skullcap loses some of its potency, so a fresh tincture is usually the recommended form for this herb (Winston, An Introduction ...).

CAUTION
Adulteration of Commercial Skullcap

There have been a few incidents of death and intoxication from usage of skullcap, or at least what people thought was skullcap. On the commercial market, Native Germander or Wood Sage (*Teucrium canadensis*) is sometimes added to or completely replaces *Scutellaria lateriflora* (Foster 2000). This adulterant is very toxic.



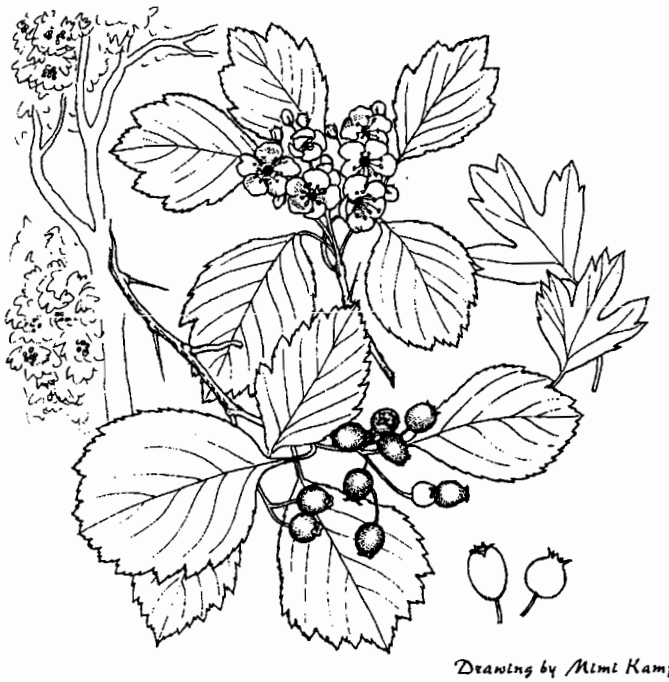
(Applequist 2006)

The *Peterson Field Guide* describes the *Crataegus* genus as follows:

> Spiny shrubs. Leaves simple, toothed; cut or lobed. Flowers mostly white, usually with 5 petals; calyx tube bell-shaped, 5-parted. Flowers spring-early summer. Fruits are dry red berries; each berry has 1-5 hard seeds.
> (Foster 2000)

"Wildman" Steve Brill, in *Identifying and Harvesting Edible and Medicinal Plants in Wild (and Not So Wild) Places* further describes the genus as having alternate and distinctly veined leaves, and the flowers as "cup-shaped, usually five-petaled" and "arranged in flat-topped clusters" (1994). While he agrees the flowers are mostly white, he adds that they are at times pink or red (1994).

It is also important to keep in mind that the strength and effectiveness of each species will vary.



(Plant Illustrations by Mimi Kamp).

Species of Hawthorn in North Carolina

Crataegus aestivalis - May hawthorn
Crataegus arcana - Carolina hawthorn
Crataegus beadlei - Beadle's hawthorn
Crataegus brainerdii - Brainerd's hawthorn
Crataegus calpodendron - Pear hawthorn
Crataegus crus-galli - Cockspur hawthorn
Crataegus disperma - Spreading hawthorn
Crataegus erythrocarpa - Red hawthorn
Crataegus flabellata - Fanleaf hawthorn
Crataegus flava - Yellowleaf hawthorn
Crataegus xhaemacarpa
Crataegus intricata - Copenhagen hawthorn
Crataegus iracunda - Stolonbearing hawthorn
Crataegus lanata - Hoary hawthorn
Crataegus macrosperma - Bigfruit hawthorn
Crataegus marshallii - Parsley hawthorn
Crataegus phaenopyrum - Washington hawthorn
Crataegus pruinosa - Waxyfruit hawthorn
Crataegus punctata - Dotted hawthorn
Crataegus rhodella - Franklin's hawthorn
Crataegus rufula - Rusty hawthorn
Crataegus schuettei - Schuette's hawthorn
Crataegus spathulata - Littlehip hawthorn
Crataegus succulenta - Fleshy hawthorn
Crataegus tinctoria - Dyed hawthorn
Crataegus uniflora - Dwarf hawthorn
Crataegus vailiae - Miss Vail's hawthorn
Crataegus viridis - Green hawthorn

(PLANTS ... Crataegus ... [updated 2008])

Skullcap *(Scutellaria lateriflora)*
Lamiaceae (Mint Family)

Skullcap is one of the better known sedatives presented here. It was traditionally used for "epilepsy, chorea, hysteria, nervous tension states, and specifically for grand mal epilepsy" (Barnes 2002). Because of its strong sedative and anticonvulsant properties, many of these conditions are still treated with skullcap today. In Cherokee medicine, skullcap has a reputation as a sedative and relaxant for healing "frazzled nerves" (Garrett 2003). One formula mentions skullcap in conjunction with *Stachys officinalis* for "relieving tension, stress and headaches" (Garrett 2003). Formulas for insomnia, difficulty sleeping, and nervousness often include skullcap.

For the treatment of depression, David Winston describes skullcap's use for individuals who experience "nervousness or spasms due to mental overwork or physical exertion" or "nervousness without apparent cause" (2007). These patients might also anger easily or "[fly] off the handle" (Winston 2007).

Clinical studies with skullcap identified the compound scutellarin, a flavonoid responsible for most of the sedative and antispasmodic actions of the plant (Foster 2000).

IDENTIFICATION

Skullcap is known by the other common names, mad-dog skullcap (Foster 2000), helmet flower, hoodwort, and Quaker bonnet and is alternatively spelled scullcap (Barnes 2002).

The plant is found in rich, damp woods and near swamps (Foster 2000 and Garrett 2003). The *Peterson Field Guide* lists the following characteristics for the identification of skullcap:

> Perennial; 1-3 ft. Leaves opposite; oval to lance-shaped, toothed. Flowers violet-blue, hooded, lipped; May-Sept. Easily distinguished from other *Scutellaria* species – flowers are in 1-sided racemes from leaf axils.
> (Foster 2000)

EARLY WOODBETONY
Pedicularis canadensis L.
FIGWORT FAMILY

(Color Drawing from the National Geographic Society).

PREPARATION

The berries ripen between late summer and late autumn, depending on the species (Brill 1994). The berries and sometimes the flowers are mostly prepared as infusions or tinctures.

Lemon Balm (Melissa officinalis)
Lamiaceae (Mint Family)

Lemon balm was introduced to the United States from Europe, and is now a common garden herb and can be found on roadsides and in disturbed areas (Foster 2000). It is reputed for its use as a sedative and anti-depressant. Winston describes it as a "wonderful mild mood elevator" especially in combination with St. John's Wort (2007). In Cherokee medicine, it is used to "calm the spirit and the nerves of the wind" and is recognized as a valuable anti-depressant (Garrett 2003). For the treatment of depression, lemon balm can be effective for seasonal affective disorder (SAD) and is also discussed in the treatment of depression associated with puberty in conjunction with Mimosa, Black Cohosh (*Actaea racemosa*), and St. John's wort (Winston 2007).

As a sedative, lemon balm is "used for insomnia related to nervous agitation" (Garrett 2003). The German Commission E affirms lemon balm's use for sleeping problems related to nervousness and anxiety (Barnes 2002). In Cherokee medicine, lemon balm has been used with lavender, valerian, or both to calm the nervous system. For a stronger formula, it can be used with peppermint and skullcap (Garrett 2003).

Clinical studies have also proven lemon balm to be an effective antiviral and antibacterial (Barnes 2002).

PHYTOCHEMISTRY
of *Melissa officinalis*

Lemon balm contains volatile oils including citrus essential oils. These volatile oils are responsible for the antidepressant and sedative action of *Melissa officinalis*. Citrus essential oils are found throughout the Rutaceae, or citrus family, and among other compounds contain the aldehydes geranial (α-citral) and neral (β citral), collectively referred to as citral (Pengelly 2004). According to Pengelly, "citral is valued for its sedative, antiviral and antimicrobial properties" (2004).

Lemon balm also contains a variety of compounds known as terpenes, also known for their action as sedatives (Duke 1997).

IDENTIFICATION

Lemon balm, also known as balm or sweet balm (Barnes 2002), is often found in disturbed areas, along roads and in other sunny areas. The plant tends to prefer sandy and loamy soil types (Garrett 2003).

As a member of the mint family, lemon balm has characteristically 4-sided stems. The common name lemon balm comes from its distinct lemon scented and flavored leaves. Aside from these characteristics, lemon balm can be identified by the following features:

> Perennial; 1-2 ft. Leaves opposite; oval, round-toothed. … Flowers whitish, inconspicuous, in whorls; May-Aug.
> (Foster 2000).

PREPARATION

The leaves and inflorescence, or flowering tops, are most frequently prepared as an infusion and can be either fresh or dried. Lemon balm is also sometimes a component of salves and used externally.

> Perennial; 5-10 in. Leaves mostly basal; lance-shaped, deeply incised. Flowers hooded, like miniature snapdragons; yellow, reddish (or both), in tight terminal clusters; Apr-June.
> (Foster 2000)

PREPARATION

The herb and flowering tops can be dried or used fresh in an infusion or tincture. Any part of the above ground plant can also be eaten fresh and has a pleasant taste.

WHICH ONE IS WOOD BETONY?

There are two other herbs that are also referred to by the common name "wood betony," *Stachys officinalis* and *Betonica officinalis*. Both of these plants are mentioned separately in *The Cherokee Herbal* for uses similar to those mentioned for *Pedicularis canadensis*. It is unclear to me if these plants have been used interchangeably, if they have different effects, and why it seems that *Stachys officinalis* has received more attention than *Pedicularis canadensis* in more recent studies. According to the USDA's Plant Database, *Stachys officinalis* and *Betonica officinalis* are synonyms of the same species and this species occurs only in Massachusetts and New York (PLANTS … Stachys … [updated 2008]).

Similar to the testimony from Becca, *Stachys officinalis* is reputed for its sedative properties "to calm the nerves of someone too caught up in things" and was used in formulas with vervain, peppermint and skullcap "as a strong calming of the body and spirit" (Garrett 2003). The Cherokee also used a combination of yarrow (*Achillea millefolium*), witch hazel (*Hamamelis virginiana*), and *Stachys officinalis* in a formula that "relaxes vessels and improves circulation and was used for 'calming the heart'" (Garrett 2003).

And there are even more plants called wood betony not discussed here!

Pedicularis (Pedicularis canadensis)
Orobanchaceae (Broomrape Family)

Pedicularis, also known by the common names lousewort, Canadian lousewort, and wood betony is mentioned in the *Peterson Field Guide*. However, the guide also notes that this herb is "not currently studied" (Foster 2000). While mention of pedicularis is scarce in literature on herbal medicine and in clinical studies, its potential importance should not be overlooked. One herbalist recounts her first experience with pedicularis and her thoughts about its use.

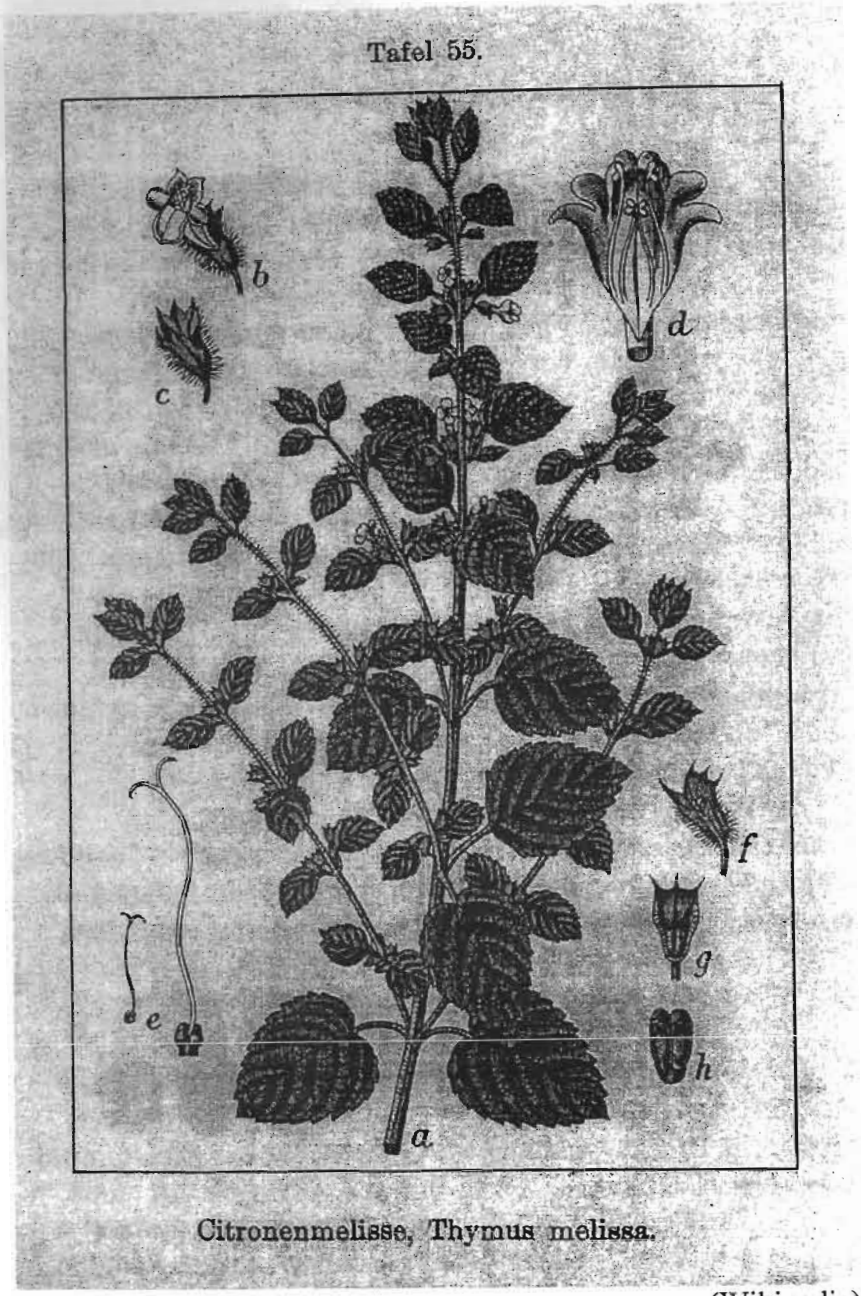
> "The first time I nibbled on its fern-like leaves I felt all the muscles in my body relax and I felt my feet firmly connected to the soil beneath them as if they were roots. I could feel my chest open and I could think of things from a point of compassion and love. I think of it as a way to create space in my body to work through things in a positive way, and it is a wonderful plant to take when entering an intimate situation that might be triggering" (Becca 2008).

Becca mentions the use of pedicularis with anemone (*Anemone tuberosa* or *A. quinquefolia*) for panic attacks and kava kava (*Piper methystichum*) and skullcap for anxiety and feelings of tightness (2008). It also may be useful for conditions of heartache, similar to hawthorn and passionflower.

Known traditional uses of pedicularis listed in the *Peterson Field Guide* include its use for "heart trouble" and as a poultice for muscle soreness (Foster 2000). This matches Becca's description of pedicularis as a relaxant and heart medicine.

IDENTIFICATION

Pedicularis is particularly common in the mountains of North Carolina, but also grows throughout the piedmont and a small area of the coastal plain (North Carolina ... [updated 2008]). It is mostly found in open woods and often occurs with many pedicularis plants in the same area (Foster 2000). The *Peterson Field Guide* lists the following characteristics for identification:



(Wikipedia).

Passionflower (Passiflora incarnata)
Passifloraceae (Passionflower Family)

This plant is probably best known for its striking flower. This flower and the root of the vine are also widely known throughout herbal medicine as sedatives and used to calm the nerves. According to Joanne Barnes, passionflower was traditionally used "for neuralgia, generalized seizures, hysteria, nervous tachycardia, spasmodic asthma and specifically for insomnia" (2002). Today passionflower is still recognized and used as a sedative and antispasmodic, especially for nervousness and conditions related to the heart. Cherokee medicine uses passionflower in formula with other herbs such as hawthorn, hops, valerian, flaming azalea and chamomile to "calm the spirit" and treat "pains of the heart" (Garrett 2003). As a treatment for insomnia, passionflower appears to be most useful for sleep problems associated with nervous tension, restlessness and "circular thinking" (Winston 2007). With herbs such as feverfew, and to a lesser extent alone, passionflower can be effective in treating tension headaches (Duke 1997 and Foster 2000).

Passionflower also has a reputation as particularly beneficial for female conditions. The Cherokee use passionflower with chamomile for young mothers (Garrett 2003) and multiple sources cite it as useful for painful menstruation (Foster 2000).

INDENTIFICATION

Passionflower is also known as old field apricot and maypop (Garrett 2003), apricot vine and passion vine (Barnes 2002). The *Peterson Field Guide* gives the following features to aid in identification:

> Climbing vine, to 30 ft.; tendrils springlike. Leaves cleft, with 2-3 slightly toothed lobes. Flowers large, showy, unique, whitish to purplish, with numerous threads radiating from center; July-Oct. Fruits fleshy, egg shaped.
> (Foster 2000).

Passionflower prefers sandy soils (Foster 2000). Some people also plant it as an ornamental. It tends to spread and climb rapidly.

PREPARATION

The flowers are used most in the treatments listed above. The use of the root is also documented. Usually the treatment includes preparations of passionflower in the form of tincture or tea (Winston 2007). Interestingly, in the United States, the FDA banned passionflower for use in over-the-counter sedatives because its safety and effectiveness are not proven (Duke 1997). While clinical studies may have been inconclusive or perhaps have not been numerous enough to yield significant results, the stories and traditions of passionflower's use for a variety of nervous conditions and sleep problems seems to suggest at least some degree of effectiveness.

The small fruits of the vine are also edible, though not reputed as medicinal, and have an interesting and sweet taste.

(Applequist 2006).