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Palmetto



Glass daggers cover the surface of *Cnidoscopus stimulosus*. Photos by Jeremy Ash.



Trying to eat tread softlies

It was a mistake to walk out into the field in flip flops. I wasn't going far, so I didn't bother with shoes or boots. I should have known that there was a nettle out there just waiting to zap me.

We try to keep the area near the house and most of the trails free of *Cnidoscopus stimulosus*, the plant we refer to as “stinging nettle” or “tread softlies.” Our principal control method for this nuisance native is as follows: approach the nettle warily and be-booted; grasp the stem of the nettle between the toes of your boots; and, lean back, thus breaking off the plant below ground. Repeated yankings are required to kill a plant because, below the rupture point, the taproot swells into cigar-shaped tuber that plunges another foot into the ground. Yanked or mowed tread softlies resprout readily. If you look carefully, you may notice that defoliation results in increased densities of the stinging trichomes on resprouted plants.

Eventually, if you are persistent, the plants succumb. Herbicides like glyphosate also kill stinging nettles, but I found that the big poisoned plants were often replaced by several small ones, perhaps germinating from buried dormant seeds.

Botanically our nettle is no relation to the nettle of the north, *Urtica dioica*. Their's has non-descript flowers and typically toothed leaves whereas ours has pretty white flowers and three-pointed leaves that exude white latex when damaged. *U. dioica* is related to hemp, fig trees, and mulberries whereas

By Dr. Francis Putz

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C. stimulosus is in the family that includes rubber trees, cassava, croton, and tung. Most importantly, while the stings of the northern nettle definitely hurt, our species really packs a punch.

Tread softly stings hurt for both physical and chemical reasons. The glass daggers that cover its stems, leaves, flower stalks, and fruits are stiff, brittle and chock full of a cocktail of compounds from which only serotonin has been isolated. Serotonin is a neurotransmitter that we need for normal brain function, but the compound has also been linked to depression, autism, eating disorders, schizophrenia, obsessive/compulsive disorder, premenstrual syndrome, anxiety, panic disorder, seasonal affective disorder, extreme violence, hostility and aggression, suicide, migraine, manic depression, and addiction. I'm not sure about these effects, but tread softly stings really do smart.

Most people give tread softlies a wide berth and wouldn't consider inviting them in for a meal. Such people probably never enjoyed eating the famous *chaya* or "tree spinach" of the Yucatan, which is the cooked young foliage and stems of *C. acntifolius* or *C. chayamansa*. With a taste somewhat akin to our familiar spinach, *chaya* is richer in protein, fiber, minerals (calcium, potassium, and iron), and vitamins (ascorbic acid and beta carotene). Tea brewed from *chaya* is also reputed to provide therapeutic benefits for non-insulin dependent diabetic mellitus (NIDDM) symptomatology. But because I have intimate knowledge of both our own tread softlies and *mala mujer* ("evil woman"), a species of *Cnidoscolus* found in Costa Rica, I approached the culinary trials with our native species with due caution.

My first attempt at turning the tread softly problem into a solution was to excavate and eat their roots. Armed with a long-handled spade, I ventured forth into the pasture, dug down a foot or so, and extracted several of the Tiparillo-thick tubers. At first I tried peeling them, but gave up and just tossed them into boiling water. After cooking for 10 minutes or so, the hard-won result was delicious, much tastier than an "Irish" potato or cassava, almost nutty in flavor.

Digging is too much work and, anyway, my principal focus was on tread softly foliage as a food. Gloved and long-sleeved, Antonio and I collected a pot full of fresh plants, and put them on the stove to boil. Our approach was to cook the plants for different lengths of time, removing a few every 15 minutes. Since the idea of piercing the roofs of our mouths with toxin-packed miniature glass daggers appealed to neither of us, we settled for checking for intact trichomes on the cooked plants with a hand lens. After 5 minutes of boiling the stinging hairs still looked lethal. An additional 15 minutes of cooking seemed to have little effect. Finally, after 45 minutes of a rolling boil, the daggers still looked lethal and we tossed them out unsavored.

Perhaps we were cowards. Perhaps the lethal-looking trichomes had actually been disarmed. In our defense, they still seemed brittle when prodded with a finger. In any case, we decided to cease in our pursuit of eating tread softlies and leave this to other, more adventuresome investigators.



Cnidoscolus Facts:

Scientific Name:

Cnidoscolus stimulosus

Common Names:

bull-nettle; tread-softly; finger-rot; spurge-nettle

Family: Euphorbiaceae (spurge family)

Field Recognition Features:

Erect plants covered with stiff stinging hairs; palmately 3- to 5-lobed leaves, conspicuous tubular-based white flowers in a cluster terminating the stem; 3-parted bristly capsule with 3 mottled seeds. Blooms all year in Florida.

Distribution: Florida: native; nearly throughout the state.

Habitat: Dry, often sandy areas such as sandhills, dry woods, beaches, scrub, and disturbed areas (such as roadsides, fields, and lawns).

Toxicity:

Irritant compounds that cause intense stinging and itching fill the long, stiff, hollow hairs on the stem, leaves, flowers, and fruits. Although not intensively studied, the injection mechanism may be similar to that in *Urtica* species: each hair ends in a blunt tip that breaks off, permitting injection of the poison into the skin. Often a rash (or tiny red bumps) appear after the burning sensation wears off (usually less than 30 minutes).

Source:

Fact Sheet HB-003; University of Florida Herbarium Stinging Nettles of Florida: *Cnidoscolus*
Online at: <http://edis.ifas.ufl.edu/hb003>



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The purpose of the Florida Native Plant Society

is to conserve, preserve, and restore the native plants and native plant communities of Florida.

Official definition of native plant:

For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

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We welcome articles on native plant species and related conservation topics, as well as high-quality botanical illustrations and photographs. Contact the editor for guidelines, deadlines and other information.

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