

Stinging Nettles of Florida: *Urtica*¹

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Classification

Scientific Name: *Urtica chamaedryoides* Pursh

Common Name(s): heart-leaf nettle; weak nettle; ortiguilla

Family: Urticaceae (nettle family)

Description

Annual herbs with stinging hairs.

Stems erect but weak and often supported by surrounding plants, generally 10-50+ cm (4-20+ in) tall, branching mainly from base.

Leaves opposite, triangular to heart-shaped in outline, bluntly and coarsely toothed, 1-6 cm (0.5-2.5 in) long, 1-4 cm (0.5-1.5 in) wide, reduced in size upward on stem, with linear bumps (cystoliths, concretions of calcium carbonate) on surface; leaf stalks (petioles) slender.

Flowers minute, unisexual (male and female in the same cluster), greenish; flower clusters more or less spherical 3-6 mm (0.1-0.2 in) wide, arising from leaf stalk-stem junction.

Fruit tiny and seed-like (achene), 1 mm (0.04 in) long, flattened, egg-shaped in outline, brown, enclosed by bract-like structures (calyx lobes). See Fig. 1.

Field Recognition Features. Weak-stemmed herbs with brittle, bulbous-based, fluid-filled, stinging hairs; opposite triangular leaves with scalloped-toothed margins; minute flowers in spherical clusters in leaf axils. (Fig. 2). It blooms from spring to summer in Florida.

Distribution. Florida: native; north and central peninsula, west to central panhandle. General: south Ohio, Kentucky-Illinois west to southeast Kansas, south to central Florida, Texas, Louisiana, and Mexico.

Habitat. Humus-rich soils (often over limestone) in floodplains, rich woods, and disturbed areas; common around farm yards.

Similar Species

Urtica dioica (stinging nettle, Fig. 3: left, flowers in long compound clusters; native to Eurasia, reported from Alachua County), *U. urens* (burning

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Figure 1. Shade form of *Urtica chamaedryoides*. Credits: Photo by Kent D. Perkins of UF Herbarium sheet.

nettle, dwarf nettle, Fig. 3: right; flowers in elongate clusters; native to Europe; reported from St. Johns, Lake, Orange, and Leon counties).

Toxicity

Irritant compounds (histamines and acetylcholines) that cause reddening and intense itching fill the stiff, hypodermic-needle-like stinging hairs on the stem and leaves (Fig. 4). When the tip of the brittle, tubular hair is broken, pressure on the bulbous hair base injects the irritants into the skin. The usual reaction, reddening and intense itching, is usually of short duration, although sensitive individuals may experience some swelling and burning. Washing the affected area or immediate application of baking soda paste soothes the stinging sensation for most people.



Figure 2. Flowering top of *Urtica chamaedryoides*. Credits: Photo by Lawrence A. Halsey, Co. Ext. Dir., Jefferson Co.



Figure 3. Left: *Urtica dioica*; Right: *Urtica urens*. Credits: Photo by Kent D. Perkins, Left: UF Herbarium sheet #55306; Right: UF Herbarium sheet #154187.



Figure 4. Stinging hairs of *Urtica chamaedryoides*. Credits: Photo by Lawrence A. Halsey, Co. Ext. Dir., Jefferson Co.

Economic Uses

None for this species. Related species of *Urtica* are used in herbal medicine and as an edible, spinach-like potherb (after boiling); extracts of the stinging compounds show promise as treatment for inflammatory conditions, such as arthritis.



Figure 5. Sun form of *Urtica chamaedryoides*. Credits: Photo by Lawrence A. Halsey, County Extension Director, Jefferson County.

Comments

The habit of *U. chamaedryoides* varies according to the environmental conditions: plants in shady areas tend to have longer, weaker stems with larger, more coarsely toothed leaves and looser flower clusters (Fig. 1), while plants in more exposed areas are much smaller with more compact flower clusters (Fig. 5).



Figure 6. Whole flowering plant of *Cnidoscolus stimulosus* (bull-nettle). Credits: Photo by Kent D. Perkins.

The unrelated *Cnidoscolus stimulosus* (bull-nettle, stinging-nettle, tread-softly, finger-rot, Fig. 6; Euphorbiaceae, spurge family), a common Florida plant, also has stinging hairs but is characterized by conspicuous white flowers and large, lobed leaves. A plant fact sheet for this species is also available.

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