

Chelone glabra

White Turtlehead is a perennial herb rising from a rhizomatous rootstock. The smooth stems are only sparingly branched above and attain heights 0.5 to 2 m. Leaves are opposite, narrow, linear to lance-ovate, and up to 15 cm long, with prominently toothed margins. Flower spikes are 3-8 cm long and form at stem tips from late summer to fall. The nearly sessile flowers open in sequence from bottom to top of the spike. The five sepals are separate (distinct) from each other, each slightly overlapping adjacent sepals. In contrast, the five petals are fused into a tubular, two-lipped, corolla 2.5 to 3.5 cm long that is oriented horizontally at anthesis;



the corolla tube is mostly creamy white but may show tinges of pink or purple towards the distal end. Five stamens are attached to the inner surface of the corolla tube; 4 of these are fertile (anther-bearing), but one is a sterile staminode (no anther). The four fertile stamens and anthers, fully enclosed in the corolla tube, form what is known as a didynamous pattern: two fertile stamens with long filaments converge just inside the mouth on the upper side of the corolla with their anthers in contact; the other two stamens have slightly shorter filaments and their anthers are similarly placed in contact with each other, but slightly deeper in the corolla tube. Corolla inner surface, filaments and anthers are hairy. The gynoecium consists of two carpels; the ovary is superior, the style follows the upper surface of the corolla tube before bending downward, thus placing the stigma directly inside the mouth of the corolla. A nectary is located below the ovary. Fruits are dry capsules about 1-1.5 cm long. Seeds are numerous, flat, and winged.



Name & Relationships

The genus name, *Chelone*, is derived from the Greek word for turtle, because the corollas resemble heads of turtles. The species portion of the binomial, "*glabra*," means smooth or hairless, and may refer to the stems or, relative to other species in the genus, the paucity of cilia-like hairs on the sepals. For centuries, *Chelone* was classified in Scrophulariaceae, the Snapdragon or Figwort family; however, DNA sequence data and cladistic analysis several decades ago resulted in dismemberment of that family. Currently, *Chelone glabra* is classified in Plantaginaceae, the Plantain family, along with many other plants formerly placed in Scrophulariaceae. Within Plantaginaceae, *Chelone* is considered closely related to *Collinsia* (Blue-eyed Mary) and *Penstemon* (Beard-tongue).

Human Uses

Native Americans and early settlers used *C. glabra* for a variety of medicinal purposes. Internally it was used as a tonic, a laxative, also to treat jaundice and intestinal parasites; topically, it was applied as a salve to relieve itching and inflammation. These medicinal uses are mentioned for historical interest; VNPS makes no recommendations concerning self-medication with White Turtlehead.





In the Wild

In nature, *Chelone glabra* can be found in diverse habitats characterized by moist soil conditions: seeps, swamps, floodplain forests, stream banks, and wet meadows. The flowers are pollinated by Bumblebees (*Bombus* spp.). Baltimore Checkerspot and Common Buckeye butterflies use leaves of *C. glabra* as a larval food plant, as do two species of sawfly. Larvae of an Agromyzid fly consume its seeds.

In the Garden

White Turtlehead performs well in cultivation, especially if provided sufficient moisture. In shady situations, the plants may become tall and spindly and require staking to keep them upright. Over time, the plants gradually form clumps by growth of short rhizomes. For vegetative propagation, clumps may be divided in spring or fall, and stem tip cuttings may be taken in early spring. Propagation by seed requires cold pretreatment, or planting outdoors in fall; germination is slow, seedlings may not emerge until at least one year has passed.

Conservation Status

Conservation status of *C. glabra* is secure. However, a close relative, *C. obliqua*, Red Turtlehead, is a rare plant in Virginia, found only in several counties along the western shore of the Chesapeake Bay and along the North Carolina border.

Where to See It

The geographic range of the White Turtlehead is roughly coincident with that of the eastern deciduous forest of North America, from southern Canada almost to the Gulf of Mexico, and from the Atlantic shore to the Mississippi River and somewhat beyond following river basins. Although not yet documented in every county of Virginia, White Turtlehead can be found throughout the state.



From the Digital Atlas of the Virginia Flora, vaplantatlas.org

Individuals should never extract established wild plants and should obtain permission from the landowner or site manager prior to the collection of seeds from non-sensitive species. We strongly encourage individuals to source their native plant material from a reputable nursery or seed vendor. To learn more about interesting species of plants native to Virginia, visit www.vnps.org for times and dates of programs and wildflower walks in your area, and for sources of nursery propagated plants.

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White Turtlehead *Chelone glabra*



2024 Virginia Wildflower of the Year

