

Common Buckwheat

Fagopyrum esculentum

Knotweed family (Polygonaceae)

Description: This annual plant is ½–2½' tall, branching occasionally. It is more or less erect, but has a tendency to sprawl in the absence of supportive vegetation. The stems become ribbed and reddish green with maturity, otherwise they are light green and round. The alternate leaves are up to 4" long and 3" across. They are sagitate or cordate, indented at the base, and often tapering abruptly above the middle. Their margins are smooth or slightly undulate. The lower leaves have slender petioles, while the upper leaves are sessile. Usually, neither the stems nor the leaves are hairy, although the upper stems are hairy on some cultivars.



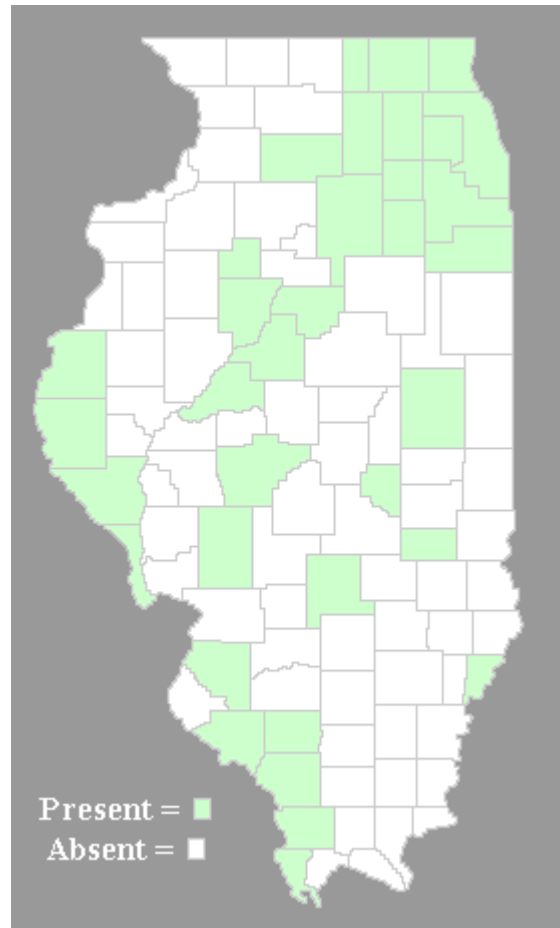
One or two racemes of flowers develop from the axils of the upper leaves; some of these racemes may be terminal. These racemes are 1-3" long, and they are densely crowded with whorls of flowers. Each flower is up to ½" across, consisting of 5 petal-like sepals, 8 white stamens with pink anthers, a tripartite white style, and no petals. The sepals are white, sometimes becoming green toward the throat of the flower. The outer surface of the sepals is occasionally tinted light pink, particularly on the flowerbuds. The blooming period occurs during the summer and lasts 1-3 months. There is a pleasant floral scent. Each flower is replaced by a winged achene with 3 sides. The membrane wings of this achene form a heart-like shape with smooth edges. To some extent, the achenes can be blown about by the wind because of their sizable wings. The root system consists of a taproot. This plant spreads by reseeding itself.

Cultivation: The preference is full or partial sun and moist to mesic conditions. Common Buckwheat tolerates a variety of soils, including loam, clay-loam, light sand, and muck. This plant can mature quickly from seed and begins to flower at a small size.

Range & Habitat: Common Buckwheat is an occasional plant that has naturalized in scattered counties across Illinois, primarily in the NE, central, and SW areas of the state. It

was introduced into Europe from central Asia during the Middle Ages, and later introduced into the United States. Habitats include fields, areas along roads and roadsides, irregularly mowed lawns, and waste areas. This plant is cultivated occasionally as a source of fodder for animals or as a green manure for agricultural fields. Escaped plants usually don't persist for any length of time. Disturbed habitats are strongly preferred.

Faunal Associations: Primarily bees and ants visit the flowers for their abundant nectar. When honeybees visit the flowers of Common Buckwheat in fields, they produce a distinctive honey. The seeds are an attractive source of food to various upland gamebirds, granivorous songbirds, and small mammals, including squirrels. The foliage is occasionally eaten by mammalian herbivores, including rabbits, deer, and livestock. However, a photosensitive reaction occurs in light-skinned animals that eat the foliage while in the presence of sunlight. This reaction is called "fagopyrism," producing such symptoms as swelling of the head and neck, blistering of the skin, and seizures. Sometimes people experience similar allergic reactions after eating products made from buckwheat flour or after exposing themselves to the foliage – but for most people, buckwheat flour is a safe and nutritious source of food.



Photographic Location: Several plants were growing on a front lawn near Urbana, Illinois. The dark green object on the right is a plastic garbage can.

Comments: The *Fagopyrum spp.* (Buckweats) differ from other members of the Knotweed family primarily by their relatively large flowers and achenes. These achenes have membrane wings like the achenes of *Rumex spp.* (Docks), but the flowers of Buckwheat are insect-pollinated and more showy in appearance than the flowers of Dock. Common Buckwheat is the only *Fagopyrum spp.* that is known to occur in Illinois, although *Fagopyrum tartaricum* (Tartarian Buckwheat) has been observed in some NE states and Canada. This latter species is similar in appearance to Common Buckwheat, except that its racemes have fewer flowers and the margins of its winged achenes are undulating rather than smoothly curved.

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