

Fallopia japonica (Houtt.) Ronse Decraene

Standardized Common Name: Japanese Knotweed

Other Common Names: Giant Knotweed, Hu Zhang, Japanese Fleecflower

Family: Polygonaceae

Taxonomy: The nomenclature of this species is complicated. In the United States, it is usually called *Polygonum cuspidatum* Sieb. & Zucc. As most broadly defined, *Polygonum* includes about 200 species, which are distributed nearly worldwide and frequently weedy. A number of these are found in commerce, often termed knotweeds, bistorts or fleecflowers. This group is commonly divided into several smaller and less variable genera, in which case “*P. cuspidatum*” is placed in *Fallopia* or in *Reynoutria* as *R. japonica* Houtt. The latter is the oldest name for the species, but the epithet “*japonicum*” could not be used when the species was included in *Polygonum* because the name *P. japonicum* had already been used for another species. *Polygonum cuspidatum* Sieb. & Zucc. is likewise an illegitimate name because that name had previously been used for another plant, so it appears that there is currently no correct name for this species when it is placed in *Polygonum*. However, the recognition of several genera within this group is well supported and is to be encouraged. *Fallopia japonica* is native to Asia but widespread elsewhere as a weed, or cultivated as an ornamental or for its high resveratrol content. The plant is dioecious (with the sexes on separate plants) and the weedy populations in Europe and North America are all female clones, reproducing asexually through dispersal of rhizome fragments. Hybridization with *F. sachalinensis* (F. Schmidt ex Maxim.) Ronse Decraene or *F. baldschuanica* (Regel) Holub is common.

Description: Rhizomatous perennial herb; stems numerous and dense, erect, usually 1–3 m high, sturdy, branched above, somewhat waxy, often red- or purple-spotted. Leaves alternate, ovate to broadly elliptic, 5–12(–15) cm long, somewhat leathery; petiole short with small sheath (ocrea) wrapping around stem; base truncate or occasionally rounded or broadly cuneate; apex short-acuminate or cuspidate to acute; margins entire. Plants dioecious; inflorescences lateral, panicle, 3–12 cm long, main branches arising near base; flowers numerous, small, in clusters of 2–4. Perianth of 5 tepals, the outer 3 winged in female flowers, white to greenish or rarely reddish in cultivated plants; stamens 8, extended from perianth; ovary 1, with 3 styles and fringed stigmas; vestigial sterile stamens or ovary present in female or male flowers respectively. Fruit an achene, 3-sided, 4–5 mm long, dark brown to blackish, glossy.

Parts in Commerce: Rhizome with roots

Identification:

- Cylindrical, long, usually cut into short sections or slices, 0.5–2.5(–3.5) cm in diameter, sometimes irregularly shaped

- Outer surface brown to grayish brown, longitudinally wrinkled, with small rootlet scars
- Cut surfaces yellowish to orangish brown
- Fracture hard
- In cross-section, contains thin brown cork; narrow ring of yellowish to tan or pale brown cortex and phloem; broad ring of yellowish wood with numerous thin, irregular rays; small brownish or hollow pith
- Bark can often be separated from wood
- Pith hollow or scalariform (containing pale septa that separate darker or hollow segments, giving “ladderlike” appearance in longitudinal or diagonal slices)
- Taste weakly bitter and astringent

***Fallopia multiflora* (Thunb.) K. Haraldson:** The most popular related species is *F. multiflora* (Fo-Ti or He Shou Wu), which is usually called *Polygonum multiflorum* Thunb. in the United States. The large, irregularly shaped, woody root tubers can be up to 15 cm long and 12 cm in diameter, and are cut into chunks or slices before drying. The outer surface is reddish brown to nearly black, irregularly grooved, with transverse lenticels. The cut surfaces are yellowish to reddish brown. The fracture is hard and starchy; some tubers are very woody at the center. The phloem is relatively thick and in each tuber contains several abnormal vascular bundles, which are nearly round and have been described as “forming brocaded patterns.” The taste is weakly bitter, but includes some sweetness.

References:

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