Cytisus scoparius (L.) Link

Standardized Common Name: Scotch Broom

Other Common Names: Broom, Irish Tops, Scoparium

Family: Fabaceae (Leguminosae)

Taxonomy: Cytisus includes about 30 species of Old World, mostly Eurasian shrubs. Cytisus scoparius belongs to Sect. Sarothamnus. It is native to Europe and is naturalized in the United States. The basionym is Spartium scoparium L.; other synonyms include Genista scoparia Lam. and Sarothamnus scoparius (L.) Wimmer ex W. D. J. Koch. Several subspecies may be recognized, most of which were initially described as species of limited range; the distinctions among these are not considered important in commerce.

Description: Shrub, to 2 m high; stems much-branched, erect to procumbent, 5-angled. Leaves alternate, trifoliolate and petiolate or unifoliolate (reduced to 1 leaflet) and sessile especially on younger stems, or almost all unifoliolate in subsp. *reverchonii*; leaflets 6–20 mm long, 1.5–9 mm broad, elliptic-oblong to obovate, apices subacute, margins entire; surfaces pubescent or glabrous, lower surface usually pubescent. Inflorescences racemose; flowers solitary or paired, pedicellate. Calyx campanulate, bilabiate, upper lip with 2 teeth, lower lip with 3, glabrous. Corolla yellow, bilaterally symmetrical; standard petal 15–20 mm long, rounded, with short claw; wings oblong; keel curved, blunt, short-beaked. Stamens 10, 5 longer, 5 shorter, all filaments attached. Gynoecium unicarpellate; style convoluted after flowering, ciliate on lower part. Fruit a legume, 25–40(–70) mm long, flattened, oblong, black, pubescent on margins; seeds 12–18.

Parts in Commerce: Tops harvested at time of flowering, consisting of green twigs

Identification:

- Twigs straight, branching, tough, flexible, 2–3 mm in diameter
- With 5 very prominent longitudinal ribs, almost star-shaped in cross-section; ribs not T-shaped in cross-section
- Epidermis dark green, sometimes with reddishbrown cork patches
- Hairless or with soft hairs; apex hairy
- Fracture fibrous, or tough and splintery in larger stems; fractured surfaces yellowish
- In cross-section, contains narrow cortex and pericycle, xylem in unbroken ring, and large pith; thick-walled fibers concentrated around vascular cylinder and in ribs
- Taste bitter and unpleasant

Adulterants: *C. scoparius* can be confused with the closely related, yellow-flowered legume *Genista tinctoria* L. (Dyer's Broom, also used in folk medicine). The stems of the latter are not star-shaped in cross-section. Youngken also reported the completely unrelated *Osyris alba* L. as an adulterant; it has numerous longitudinal striations, and the wood is white.

References:

Fernald ML. *Gray's Manual of Botany*, 8th ed. New York: American Book Company; 1950:890.

Frodin DG, Heywood VH. *Cytisus*. In: Tutin TG, Heywood VH, Burges NA, et al., eds. *Flora Europaea*. Vol. 2. Cambridge: Cambridge University Press; 1968:86–90.

Norverto CA, González-Andrés F, Ortiz JM. Leaf and stem anatomy of species of *Cytisophyllum*, *Cytisus*, *Chamaecytisus*, *Genista*, and *Genista* Sect. *Teline* (Fabaceae: Genisteae) as an aid for taxonomy. *Israel J Pl Scis*. 1994;42:213–225.

Wichtl M, ed. *Herbal Drugs and Phytopharmaceuticals*, 3rd English ed. Stuttgart: medpharm Scientific Publishers and Boca Raton, FL: CRC Press; 2004:555–557.

Youngken HW. *Text-Book of Pharmacognosy*, 5th ed. Philadelphia, PA: The Blakiston Company; 1943:467–469.