

Doronicum grandiflorum Lam.

Asteraceae – Helenieae

Syn.: *Arnica scorpioides* Jacq., *Aronicum barcense* Simonk., *A. latifolium* Rchb., *Doronicum ambiguum* Rouy, *D. gracile* Schur, *D. halleri* Tausch, *D. portae* Chabert, *D. viscosum* (Frey & Gaut.) Nyman

Description: Perennial herbs, 10–40 cm tall, glandular hairy, stems erect, unbranched, basal leaves long petiolate, ovate to subcordate, margins coarsely dentate, cauline leaves sessile, capitula yellow, 4–6 cm across, terminal, single.

Distribution: Europe (Alps, Pyrenees, N Balkans).

Habitat: Rocky debris, screes; on limestone.



CC0 1.0

Rhizome with a diameter of 3–4 mm. Xylem to bark ratio 1:1. Rings indistinct. Very large pith. Analyzed: 4 individuals.

Xylem

Transverse section

Diffuse-porous. Ring boundaries, if recognizable, marked by a slight difference in latewood and earlywood vessel diameters. Large vessels with a diameter of 50–80 μm . Vessels lignified, thin- to thick-walled, solitary or in small tangential groups. Vessel outline angular. Fibers and fiber tracheids absent. Parenchyma paratracheal, pervasive. Shape of vascular bundles remaining over several years. Vascular bundles surrounded by an endodermis-like row of oval cells. Crystals absent.

Tangential section

Rays absent within vascular bundles. Large rays between bundles 6- to >10-seriate, unligified, confluent with the axial tissue.

Radial section

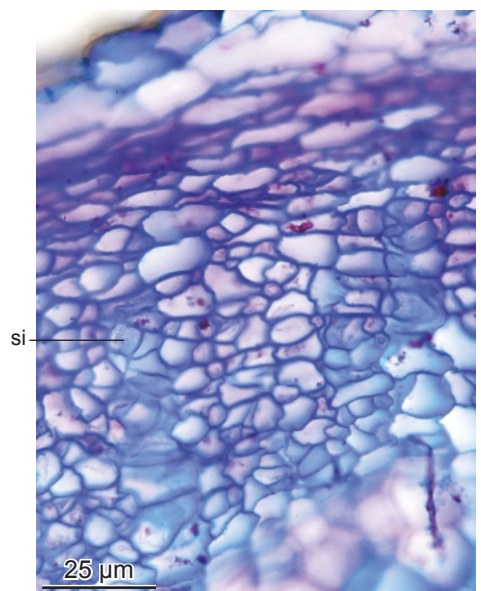
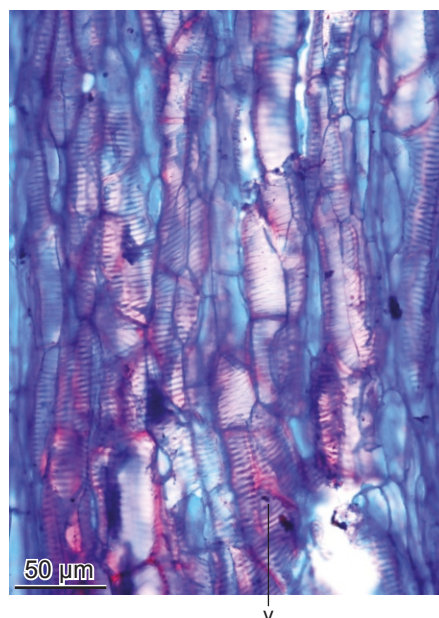
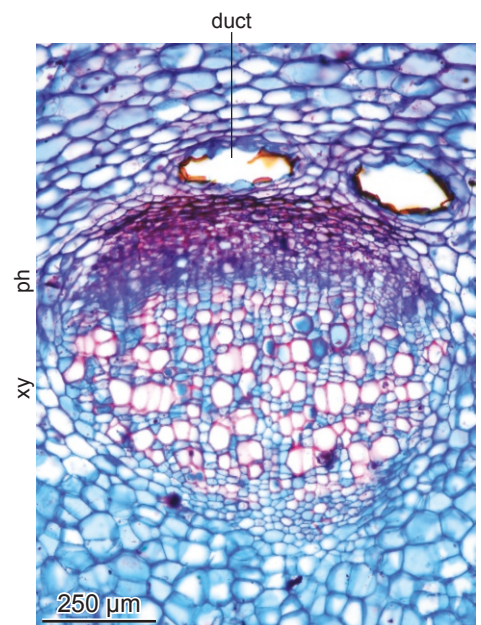
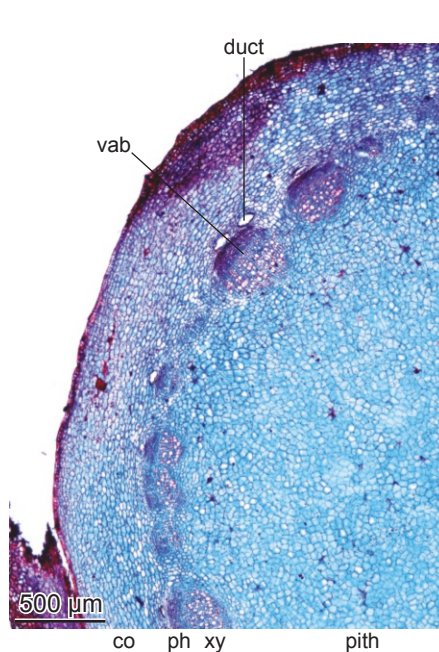
Perforation plates simple. Intervessel pits scalariform. Vessel length 100–120 μm . Interfascicular zones with upright cells.

Bark

With large ducts. Sieve elements in small groups. Phellem consisting of very few rectangular cells.

Pith

Very large.



Features according to IAWA and Crivellaro and Schweingruber 2015

Xylem 1 - 5 - 9 - 12 - 13 - 22 - 41 - 50.2 - 52.3 - 60.1 - 79 - 79.1 - 99 - 99.1 - 100.1 - 100.2 - 105