



Perennial emergent rhizomatous herb. Stem erect, up to 1.2 m high. Leaves are heteromorphic, sessile linear leaves in the basis and petiolate lanceolate to cordate leaves emerge above water level. Inflorescence is a terminal raceme of purple flowers with two yellow markings. The fruit is a capsule.

### Distribution and ecology

Native to both N and S America, but secondarily also in Australia and S Africa. In CE as a neophyte, rarely reported from DE, CH and CZ. It grows in variety of wetlands, especially on pond and lake margins, rich in nutrients. Seeds are dormant at the time of dispersal. It reproduces also by rhizomes, forming large clonal stands.

### Anatomy

Round flower stalk with a diameter of 5–8 mm (1).

The flower stalk consists of a net-like aerenchymatic tissue with irregularly distributed vascular bundles. A cortex is absent (1). The vascular bundles consist of a centripetal air duct and a peripheral large group of angular sieve tubes with companion cells (2). Vessels are absent. Small rudimentary vascular bundles occur just inside the epidermis (1).

Round rhizome with a diameter of 10–15 mm (3).

The rhizome consists primarily of an aerenchymatic net-like tissue (3, 7). An endodermis separates the central part from the cortex (3, 4). Vascular bundles are distributed in the whole central part. They consist of a few lignified vessels, groups of sieve tubes, parenchyma cells and a central duct (5). Vessel walls have scalariform intervessel pits or ring-like structures (6). Raphids and dark staining substances occur in large cells (4, 7).

