

Mini data sheet on *Sarracenia purpurea* (Sarraceniaceae)

Added to the EPPO Alert List in 2021 - Deleted in 2024

Reasons for deletion:

As no immediate risk was perceived, *Sarracenia purpurea* was transferred in 2024 to the EPPO Observation List.

Why

Sarracenia purpurea (Sarraceniaceae) is a carnivorous pitcher plant native to North America. It occurs in the natural environment in several EPPO countries with a limited distribution, often in sites of high conservation importance where it poses a risk to natural plant communities and associated ecosystem services. The species is adapted to the Western European climate and therefore there is the potential for further establishment of the species in suitable habitats.

Geographical distribution

North America: Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Québec, Saskatchewan), USA (Alaska, Connecticut, Delaware, Georgia, Illinois, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Virginia, Washington, West Virginia, Introduced: California, Washington).

EPPO region: Austria, Czech Republic, Denmark, France, Germany, Ireland, Sweden, Switzerland, United Kingdom.

Morphology

Pitchers: persistent, appearing with or after flowers and continuously all summer, decumbent or sprawling to ascending, nearly green with various degrees of red or purple veins, or suffused reddish or purplish to nearly uniformly purplish red. Urceolate (gently S-curved), 5-25(-45) cm (bulging distal of middle, 3-6 cm at widest point), firm, sometimes shiny or waxy, external surface glabrous or glabrate to densely pubescent, wings 1-3(-4) cm diameter; orifice round to oval, (gaping, with rainwater held in pitcher), hood erect or with lobes arched together over orifice, same colours and veined as pitcher, reniform, undulate or entire, 2-5 × 3-7 cm, wider than long, basal lobes cordate, attached to sides of rim of orifice with no neck, distal portion somewhat abaxially recurved and notched apically, apex not apiculate, adaxial surface with decurved setae 0.6-1.8(-3) mm.

Scapes: 22-79 cm, much longer than pitchers; bracts 0.5-0.8 cm.

Flowers: moderately fragrant; sepals purplish red, 2.2-4.2 × 1.5-3.5 cm; petals red to maroon, distal portion elliptic to obovate, 3.3-5.3 × 1.5-3 cm, margins entire; style disc green, 4-5 cm diameter, (style arms 1.7-3.8 cm). In Western Europe, *S. purpurea* usually flowers in June and July, setting seed in August and September.

Capsules: 1-2 cm diameter.

Seeds 1.7-2 mm long.

Biology and Ecology

Sarracenia purpurea is a carnivorous plant which attracts insects and other small animals to its pitchers (pitfall trap), where they are then digested. It reproduces by seed which are abundantly produced (up to 1 000 seeds per inflorescence) and remain viable in the seed bank for up to five years.

Habitats

In Western Europe, habitats where *S. purpurea* has become invasive include raised and blanket bogs and mires. Most populations in the United Kingdom occur below 100 m altitude. Once planted, populations can be very persistent.

Pathways for movement

In most, if not all, of the sites where *S. purpurea* occurs in Europe, it is believed to have been deliberately planted, presumably by carnivorous plant enthusiasts. There is the potential for movement of seed via water and movement of habitat material (e.g. soil or mosses) which includes seed.

Impacts

Where *S. purpurea* is present in abundance, it can outcompete native vegetation in particular displacing the bryophyte community. The presence of the species is also likely to restrict habitat availability of higher plants. The tendency for this species to be planted in habitats with high conservation potential may exacerbate its impacts.

Control

Manual removal of plants has been shown to be successful when controlling small populations. Hand-pulling is relatively quick and cost-effective but regeneration from the seed bank is likely. Chemical application (glyphosate) has been shown to kill the plant with no impact on the associated bryophyte community. However, non-target effects on higher plants have been reported. In the EPPO region, action has been taken to remove populations of this species in Belgium and the United Kingdom.

Sources

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