

Mini data sheet on *Acer rufinerve*

Added to the EPPO Alert List in 2017 - Deleted in 2019

Reasons for deletion:

Acer rufinerve was transferred in 2019 to the EPPO List of Invasive Alien Plants.

Why

Acer rufinerve (Sapindaceae) is a medium sized deciduous tree and is native to Japan. It is planted throughout the EPPO region in arboreta and green areas. Recent observations in three Belgian forests show the species has invasive tendencies where it outcompetes native plant species and reduces local biodiversity.

Geographical distribution

EPPO Region: Belgium (invasive), the Czech Republic, Denmark, Finland, France, Germany, Ireland, Lithuania, the Netherlands, Poland, Russia, Slovenia, Sweden, Switzerland, the United Kingdom.

Asia: Japan (native).

North America: Canada, USA (Arizona, California, Colorado, Delaware, Georgia, Idaho, Illinois, Kentucky, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Virginia, Washington).

Oceania: Australia, New Zealand.

Morphology

A. rufinerve is a medium sized deciduous growing tree to a height of 15 - 20 m. The trunk is up to 40 cm in diameter and grey-green with narrow grey-white longitudinal stripes. Branches are green and new shoots are glaucous, with a bluish-grey bloom. Leaves are opposite, 8-15 cm long and wide, with either 3 or 5 shallow lobes. Flowers are in terminal 5-10 cm racemes with 10-20 flowers.

Biology and ecology

Throughout its native and introduced range, seed production is very high and dispersal can occur up to 50 m from the maternal plant facilitated by wind.

Habitats

A. rufinerve is an early successional light demanding forest species which occurs in forest edges, small gaps and the understory of acidic woodlands. The abundance of the species declines as the forest successional process proceeds. In its native range, *A. rufinerve* grows in the middle and upper parts of mountain forest slopes to an elevation of 2 500 m.

Pathways for movement

A. rufinerve was introduced widely into the EPPO region in the late 19th century as an ornamental tree species. The species was first introduced into Europe in 1880 where the first record was for a nursery in Denmark.

Impacts

The impact of *A. rufinerve* in Belgium forests is the first time the species has been reported as showing invasive behaviour in its introduced range. A few *A. rufinerve* trees were planted by foresters in a 300 ha forest of Bon-Secours near Mons (Belgium) between 1950 and 1970. Since, the species has colonised over 60 ha. Young saplings can form dense thickets and plant species richness of the herbaceous layer and regeneration of light demanding tree species are strongly reduced in these areas.

Control

Young plants (4 - 5 cm in diameter) have a shallow root system and individuals can be hand-pulled and removed. Hand pulling of larger stems is more difficult and could be replaced by cutting combined with chemical treatment of stumps to avoid sprouting. Where the species is widespread, mechanical soil crushing up to a depth of 25 cm may be used but superficial mulching should be avoided because of the high re-sprouting capacity of the plant.

Source

Branquart E, Dupriez P, Vanderhoeven S, Landuyt Wvan, Rossum Fvan, Verloove F, (2011) Harmonia database: *Acer rufinerve* - red veined maple. Harmonia version 1.2., Belgium: Belgian Forum on Invasive Species. <http://ias.biodiversity.be>