Wall Cotoneaster, *Cotoneaster horizontalis*

**Overview**

Short description of *Cotoneaster horizontalis*, Wall Cotoneaster

It is a deciduous to semi-evergreen procumbent shrub which forms low mounds of foliage. Its branches spread horizontally in a characteristic herringbone pattern and bear many small, shiny dark green leaves. Small pinkish flowers are borne freely in May in small clusters, followed by dark red shiny fruits up to 1cm in diameter in the autumn.

**Description of *Cotoneaster horizontalis*, Wall Cotoneaster status in GB**

Wall cotoneaster is widely planted in gardens and landscaping schemes. It readily escapes over the garden wall and is widespread in the wild across most parts of lowland GB.

**Habitat summary: *Cotoneaster horizontalis*, Wall Cotoneaster**

Its habitats fall into two distinct lowland categories. In urban areas it is characteristic of disturbed, dry sites. More troublesome is its preference for herb-rich limestone grassland, crags and other important semi-natural habitats.

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**Invasion history: *Cotoneaster horizontalis*, Wall Cotoneaster**

**Origin**

This species is a native of western China (Sichuan and Gansu).

**First Record**

It was first recorded from the wild in GB in 1940.

**Pathway and Method**

Wall cotoneaster has been a highly popular garden plant since around 1880 when it was first introduced to cultivation. It is appreciated by gardeners for its toughness, tolerance of north and east-facing situations and attractive foliage and berries. It received an RHS First Class Certificate in 1987, Award of merit in 1925 and Award of Garden Merit (AGM) in 1984 so remains highly sought-after.

**Species Status**

This species has spread rapidly across lowland parts of GB. In 1969 it had been recorded from 53 10km grid squares centred on Oxfordshire. Thirty years later it had been found in 961 squares.
with the strongest populations apparently associated with light soils in southern England. It had also spread to Eire. Its rate of spread may have slowed a little since 2000. It also appears to be introduced-naturalised across France but according to DAISIE is not regarded as invasive elsewhere in Europe.

**Ecology & Habitat: Cotoneaster horizontalis, Wall Cotoneaster**

**Dispersal Mechanisms**
It bears many small bright red fruits; when ripe, soft and juicy these are eaten by thrushes and finches which then subsequently disperse the seeds in their droppings. Plants can also reproduce from node-rooting fragments and are self-layering so plants can also spread by vegetative means.

**Reproduction**
An apomictic tetraploid in which seed is produced without fertilisation. Flowers are bisexual and epigynous, borne in small clusters of dark red-pink flowers which are abundant in spring. Bees and other insects pollinate the flowers and innumerable small orange-red shiny fruit develop in the autumn, persisting into winter.

**Known Predators/Herbivores**
Wall cotoneaster has very few pests in GB. In the United States there are more predators; hawthorn lace bug *Corythucha cydoniae*, scale and spider mites, cotoneaster webworm *Athrips rancidella*, sinuate pear tree borer *Agrilus sinuatus* and pear leaf blister mite *Phytoptus pyri* are all known to afflict cotoneasters. Fireblight – caused by a bacterium, *Erwinia amylovora* – may occasionally break out but is more of a problem with larger and later-flowered species. Leaf spots and canker also occur in the United States.

**Resistant Stages**
Each fruit bears three seeds which germinate as a clone of the parent plant. Germination usually takes between one and eighteen months but seeds may sometimes remain viable for five years. Chemicals in the flesh of the fruit can induce seed dormancy and seeds typically require up to six weeks of cold-induced stratification to promote germination.

**Habitat Occupied in GB**
Wall cotoneaster is tolerant of dry and nutrient-poor sites and is found in many man-made lowland habitats, including railway banks, quarries, pavements, chalk pits and walls. It also invades more semi-natural habitats such as limestone grassland, limestone pavement and cliffs and is particularly fond of light, well-drained calcareous substrates.

**Distribution: Cotoneaster horizontalis, Wall Cotoneaster**
Widespread and well established throughout lowland GB with a particular abundance in chalky parts of the south.

**Impacts: Cotoneaster horizontalis, Wall Cotoneaster**

**Environmental Impact**
Its ability to escape readily from gardens and to invade semi-natural vegetation with high conservation value – such as limestone grassland – means that locally it may pose a serious threat to biodiversity. Once established in a site it spreads rapidly and its semi-prostrate form and herringbone branching pattern smother other vegetation. In habitats of lower value, especially in urban areas, it may actually have a net benefit to local ecosystems as its flowers are highly attractive to bees and birds eat its berries in the winter when other food sources may be scarce.

**Health and Social Impact**
The fruits are poisonous to humans. Where Wall cotoneaster has become established in nature reserves and other areas used for public recreation it may reduce enjoyment of local habitats and native species.

**Economic Impact**
With a reputation for being incredibly tough and tolerant of demanding garden situations it remains a highly popular garden and landscaping plant and is sold by many garden centres and nurseries. It is known to be costly to remove from wildlife sites but there are no figures to substantiate this. In urban areas it also has the potential to damage buildings by rooting in crumbling mortar and cracks.

**References & Links: Cotoneaster horizontalis, Wall Cotoneaster**

**Identification**
Flora of China: [http://flora.huh.harvard.edu/china/PDF/PDF09/Cotoneaster.PDF](http://flora.huh.harvard.edu/china/PDF/PDF09/Cotoneaster.PDF)

Biology, ecology, spread, vectors
and Foliage, Timber Press, London.

University Press.

Cambridge.

Distribution maps from the NBN Gateway:
www.searchnbn.net/searchengine/search.jsp?tab=1&pg=1&searchTerm=Cotoneaster+horizontalis

Management and impact
Generic control of Cotoneasters: Tamar Valley (Tasmania) Weed Strategy website:
www.weeds.asn.au


General
The Royal Horticultural Society www.rhs.org.uk/plantsselector