

IVY - FRIEND OR FOE

The issue of ivy and trees is one of those matters where it is all down to personal opinion. To some, it is a pernicious weed that smothers the natural form of trees and on which constant war must be waged. To others, it is an essential part of the wildlife habitat, providing shelter and food for a diverse range of different organisms. In reality, it will all depend on where and under what circumstances the tree is growing. Context is the key word here, and what might be fine in the middle of woodland may not be so desirable in formal parkland or a residential front garden.

Ivy is very well adapted to living in woodland, which represents its natural habitat. Its growth characteristics enable it to survive where light levels are low, on the ground and up trunks of trees whose dense foliage shade the woodland floor. Ivy's attributes of shade tolerance and evergreen foliage have proved invaluable in our gardens, where it has been used for attractive evergreen coverings for north facing walls and to provide ground cover in dark corners. Although the common ivy *Hedera helix* appears the most frequent, a variety of cultivars and other species are available for horticultural use.

Hedera helix, is the only native British evergreen climbing shrub. It has a habit known as dimorphism, whereby two forms occur within the same species. The juvenile growth, with its characteristic lobed 'ivy shaped' leaves, is adapted to living in low light conditions and is found creeping along the ground or climbing up walls and tree; while as the plant matures, it can throw out bushy branches and flowering shoots with very different, elliptical leaves (lanceolate to ovate). This adult form will only develop where the light conditions allow, and it is mostly found on the climbing section of the plant, only rarely on the ground.

Ivy has a very bad reputation and it is commonly thought that it kills trees. Contrary to popular belief, ivy is not parasitic and does not directly affect the health of the trees it climbs. Unlike true parasitic plants, (such as mistletoe, whose roots tap directly into the resources of the host plant) ivy has its feeding roots anchored in the ground and simply uses the tree as a support to get to where it wants to go. The masses of tiny, hair-like roots sprouting from the under surface of the stems, are simply designed to provide support and allow the plant to climb. Although these roots provide almost immovable adhesion to the rough surfaces of tree trunks and walls, they are not used for feeding, and at worst only penetrate the outermost layer of bark on host trees.

It is primarily in terms of competition for natural resources that ivy affects the health of trees, particularly where light is concerned. If ivy has become established on a tree, it is more likely to be a sign of stress than a cause of it. A heavy infestation of ivy, particularly in the upper crown, is usually an indication that the tree is in a natural state of decline; most healthy crowns will let insufficient light through for the ivy to grow vigorously. Ash, *Fraxinus excelsior*, is an exception as the crown tends to be thin and open. This allows major infestations to occur, thereby restricting photosynthesis, but it is still unlikely that the life of a healthy tree will be shortened. In the case of a diseased or dying tree, where the its growth rate and vigour may be slow or in decline, the ivy's more vigorous growth allow it to smother the tree. The bushy adult growth will then have a tendency to make the tree top heavy, making it more likely to fall, particularly during adverse weather conditions.

One of the most important aspects when contemplating the removal of ivy from a mature tree, is its enormous wildlife value. The dense mass of foliage and intertwining stems around the trunks of trees, provide shelter for birds to build their nests, and dark nooks and crannies where bats can roost through the day. In Autumn, ivy flowers are an important source of pollen and nectar for wasps, butterflies, bees and a host of fly species. Over winter, ivy protects woodland soils from full snow cover and frost. This enables ground foraging birds such as blackbirds, robins, dunnocks and thrushes to continue feeding; while a sheltered habitat is also provided for small mammals and insects.

The berries, which ripen in March / April, have a high fat content and, although poisonous in large quantities, they provide both native and migrant birds with an invaluable early energy resource. Wood pigeons, starlings, resident and migrant thrushes and newly arrived summer migrants such as blackcaps feed on them. Some species of invertebrate are known to feed on the foliage of ivy, and several species of beetle bore the mature stems, while spiders spin their webs to catch others that fly in to shelter.

It should rarely be considered necessary or appropriate to remove ivy from trees within a woodland setting, where it is an integral part of the native ecosystem. An experiment was carried out, from 1890-1942, where ivy was cut on half the trees in a wood, and left to its own devices on the rest. When the wood was felled in 1942 there appeared to be no difference in the height, average girth or cubic content of the trees. On the other hand, in parks and gardens where conditions have allowed it to grow unchecked, it can become quite a problem; choking the crowns of ornamental trees, swamping less vigorous shrubs and smothering walls and rockeries.

Although rarely a problem to the tree, a dense covering of ivy over the trunk and throughout the crown of a mature specimen can inhibit essential safety checks, by limiting a visual inspection of the trunk and main branches. Where mature trees are growing in residential gardens often close to dwellings or public open space, it is important to be able to complete regular hazard assessments and monitor the decay of old wounds. In such circumstances it becomes essential to remove the ivy.

From a practical viewpoint, the most effective way of removing ivy is to cut it near to the base of the tree. When doing this, it is necessary to remove a section of all the stems around the entire circumference of the tree's trunk. Once cut from its roots the ivy growth, up the trunk and branches, can be left to die on the tree, and when sufficiently dry and brittle it can be removed. The best time to consider this work is over the winter when the host tree is likely to be bare of leaves, and visibility while completing the task is much improved. Very dense ivy can sometimes be used by bats to hibernate through the winter. To avoid unnecessary disturbance of hibernating bats it is best to cut the stems of ivy in the late summer or autumn, so the foliage dies before the winter months. The removal of ivy during the summer should be avoided where possible, because of its likely use by nesting birds and roosting bats.

It is an offence under the Wildlife and Countryside Act 1981 (as amended), to intentionally damage or destroy a wild bird's nest, whether in use or under construction. The use of the ivy by bats for shelter and roosting must also be considered. A bat roost is protected both under the Wildlife and Countryside Act 1981 (as amended), and The Conservation (Natural Habitats etc.) Regulations 1994, which make it an offence to damage or destroy a breeding site or resting place of any bat, and it does not require the offence to be intentional or deliberate. Furthermore, under an amendment made within the Countryside and Rights of Way Act 2000, it became an offence to recklessly damage or destroy a bat roost, and it could be reckless not to consider possible use of ivy for roosting.

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