



ENGLISH HERITAGE

Landscape Advice Note: Canada Geese



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Canada geese (*Branta canadensis*) frequently use lakes, ponds and grassland in historic landscapes, and may have adverse effects for a variety of reasons. This Landscape Advice Note outlines the damage that can be caused by Canada geese and how this can be managed and mitigated at historic sites.

INTRODUCTION

Waterfowl are an important feature of many lakes and ponds in historic landscapes. It is essential to determine the causes of problems before targetting management of individual species or groups of species. The ecology of individual species and their abundance will have different impacts.

CANADA GEESE

The Canada goose is not a native species. It was introduced from North America, initially by Charles II in 1665 and there have been many further introductions since. Until the 1940s, most geese were resident in parklands and numbers remained fairly low. There has been a rapid increase in population over the past 70 years, partly due to an increase in suitable habitat such as reservoirs and flooded gravel pits. The British population is still increasing.

Canada geese are largely herbivorous and spend a lot of time grazing on grassland or in water. Parks can be ideal habitat for the species. This can lead to problems with feeding damage or trampling of vegetation, and accumulations of droppings.

Canada geese can live up to 30 years. They start breeding at two to three years old. Females lay usually four to nine eggs in March or April, and nest either singly or in small groups. The species has very different requirements at different times of year. In the breeding season, water bodies with islands or other undisturbed areas are selected by the geese as these make secure nesting sites. Following breeding, adults moult for around 35-40 days in June and July. They are flightless and spend most of their time on the water to avoid predators. During the autumn and winter they select sites with good grazing.

Many Canada geese are extremely tame, and will come to be fed consequently they are often very popular with visitors. On some sites, control of this species may well be a contentious issue.

TYPES OF DAMAGE

Canada geese, particularly if present in large numbers, may cause a number of problems:

- Vegetation damage

Grazing geese may damage lawns and other vegetation, particularly on the banks of ponds or lakes. The birds forage on a range of vegetation. As well as grass they will also eat aquatic and emergent plants which can be important for maintaining dissolved oxygen levels in water bodies. Geese may also damage vegetation by trampling, particularly around the edges of water bodies. In large numbers, the geese can also damage grass areas.

- Droppings

On lawns and grassland Canada geese droppings are unsightly, and the droppings may make paths dangerously slippery. Droppings in lakes and ponds add nutrients, particularly nitrate and phosphate, to the water, which can eventually seriously affect the water quality ecosystem. There is some evidence that they pose a hazard to human health if accidentally ingested.

- Physical damage

Large numbers of geese may create extensive areas of bare ground at the water's edge and cause erosion of the banks.

- Aggression

During the breeding season, geese may become more aggressive towards people, dogs and other waterfowl. Dogs may provoke a particularly fierce response from geese during the breeding season.

EXTENT OF DAMAGE

Damage caused by Canada geese must be viewed in context - the impact of any damage depends not just on the numbers of geese present but also the nature and uses of the site. A relatively small number of geese may cause significant problems in a small formal site, while a much larger population may cause no significant problems if the site is large, less formal, or little used by people.

Before any control is considered, it is important to carry out monitoring of the population to determine when in the year Canada geese use the site, and what they use it for. If geese are not present all year round, monitoring should also be carried out in other areas they use as any control measures may need to be

01



02



FRONT COVER

In large numbers, Canada geese can damage vegetation in and out of the water and create a large amount of mess
© Alan Cathersides

IMAGE 01

A Canada goose on water © Alan Cathersides

IMAGE 02

Important vegetation may require specific protection from being eaten or trampled by Canada geese © Alan Cathersides

coordinated with other landowners to ensure they are effective.

Although geese may be the most visible cause of a problem, they may not be the most significant. For example, water supply and the flow in a water body will have an enormous impact on the water quality.

The presence of other waterfowl species should also be monitored, as these may be affected by control measures.

MANAGEMENT OPTIONS

Research on the control of Canada geese has identified a range of techniques. The research, which included one site with over 300 geese present in summer, suggests that control techniques used in isolation are unlikely to be effective. Control measures will only work if an integrated programme of management techniques is carried out.

In many cases, management options will necessarily be restricted by the need to preserve historic features, planting layouts and so forth. Not all management options will be appropriate for all sites.

All potential control methods are aimed at reducing the numbers of geese, rather than completely excluding geese from a site, as this is usually impossible to achieve. Most control methods may be less effective if the population is relatively small. Control measures can be divided into site-based and population-based techniques.

SITE-BASED MANAGEMENT

Site-based management measures do not require a licence and include:

- Exclusion from islands

Fencing islands in ponds and lakes used for breeding can discourage geese from nesting on the islands. A 1m chicken wire fence with a 10cm gap between the ground and the bottom of the fence will allow other waterfowl to use the island. This technique is most likely to be successful if islands are well vegetated as this discourages geese from flying over the fence.

- Access to grazing areas

Fencing around the margins of a water body can discourage geese from feeding in areas beyond. In this way they can be directed away from sensitive grazing areas. Replanting grassland areas with shrubs decreases the food supply. Fencing these areas will be needed to ensure plants establish without grazing or trampling pressure.

- Reduce visibility of water bodies

Geese prefer to graze close to a water body which provides them with a safe retreat. By obscuring the views between feeding and grazing areas, geese will be discouraged from using them, however, this may be difficult to achieve in historic landscapes.

- Controlling public access

Fencing of water bodies can also be used to influence visitors, by restricting opportunities for feeding geese.

- Interpretation

Many people visiting sites value the waterfowl populations and consequently control measures may be controversial and should not be attempted without interpretation explaining the reasons for, and benefits of, carrying out control. For example, explaining that there are nature conservation benefits in reducing the geese population. Interpretation can also be used to discourage feeding of the birds, and inform people about aquatic ecology.

- Other methods

A number of other techniques can be used but are less well researched. Bird scaring is widely used in some areas on farmland but is less commonly used in aquatic habitats. Many scaring methods are also disturbing to visitors and nearby residents. Chemical repellents are used in North America but with limited effectiveness, and they are not currently approved for use in Britain.

POPULATION-BASED MANAGEMENT

Most population-based management measures require a licence and include:

- Translocation

This method has been used in the past, but is no longer encouraged, as it simply transfers a problem to a different site. It is also an offence to release Canada geese into the wild without a licence. Unless other measures are taken, other geese may colonise a site which has had its previous population removed.

- Egg-pricking, oiling or boiling

These are an effective way of preventing hatching, as birds are very loyal to their nesting sites, but the longevity of geese mean that a long-term programme of this management would be necessary in order to significantly reduce a population. Oiling of eggs kills embryos by depriving them of oxygen. In order to carry out any of these operations, a licence for the work must be obtained (see below). Leaving eggs

in place but preventing them from hatching means adults continue to protect them. Removal of eggs simply induces the female to lay more.

- Culling

Culling also requires a licence if it is to be done during the close season (1 February to 31 August, or 21 February to 31 August below high water mark). Outside the close season Canada geese can be shot by an authorised person, provided that other regulations concerning firearms safety, capture methods and so forth are adhered to. However this has practical difficulties on many sites. It may be more practical to round up geese during the moult, when they are unable to fly, however culling of geese is a very emotive issue.

LICENSING OF CONTROL OPERATIONS

All wild birds, including Canada geese, are protected under Section 1 of the Wildlife & Countryside Act, 1981. It is an offence to take, damage or destroy their nests or eggs without a licence, and it is also an offence to release them into the wild.

Licences for culling in the close season, egg-pricking or translocation of Canada geese can be issued for a number of reasons:

- To prevent serious damage or disease
- To conserve and protect wild birds
- To conserve flora and fauna
- To preserve public health or safety
- To prevent serious damage to livestock, crops, forestry or fisheries
- For the purposes of air safety

Licences are not issued solely to prevent damage to property.

OTHER BENEFITS OF CONTROL MEASURES

Parks in south-west London developed an integrated management strategy, involving both site-based and population-based control of geese as well as a range of other management techniques, to control populations and it resulted in a number of beneficial side-effects.

The measures taken to reduce numbers of geese were very effective and other waterfowl benefitted greatly from the changes. More species began to regularly

use the ponds, and many species also increased in numbers. This is probably partly because the goose population before control measures began had been extremely high.

The reduction in geese numbers also assisted with attempts to improve water quality, mainly through a reduction of nitrate and phosphorus deposited as droppings in the ponds and lakes. The water bodies now support more invertebrate species and are better able to support aquatic plants, and this will gradually further improve the water quality and dissolved oxygen levels.

FURTHER INFORMATION

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