



Cormorants

THE FACTS

Introduction

Numbers of cormorants have increased substantially in Britain since the 1970s, especially at inland water bodies. Fisheries and angling interests are concerned that this increase can threaten fish stocks and impact upon the viability of fisheries. Conservation groups are worried that any widespread effort to control cormorant numbers could threaten the birds' conservation status.

This leaflet tries to address these concerns and to answer some of the questions most often asked about cormorants. The leaflet has been produced by the Fisheries and Angling Conservation Trust (FACT) Joint Wildlife Management Group - a partnership of fisheries and conservation organisations.

What species of cormorant ?

Two species of cormorant occur in north west Europe - the Great Cormorant and the Shag. However, there are two sub-species of the Great Cormorant in Europe both of which can live inland. One of these, *Phalacrocorax carbo carbo*, is primarily a coastal bird, nesting mainly on cliffs and offshore islands, but sometimes moving inland, particularly in winter. The other, *Phalacrocorax carbo sinensis*, favours inland breeding sites, usually in trees. The *carbo* sub-species has a smaller range (mainly North West Europe) and the UK supports a significant proportion of the world population. The *sinensis* sub-species is much more numerous and its range extends across Europe and parts of Asia. The two sub-species are difficult to tell apart in the field - the *sinensis* sub-species is slightly smaller and has a different shaped gular patch (the pad of skin at the base of the bill), but even experts have difficulty distinguishing them. The *carbo* sub-species contributes the majority of the UK population, although the proportion of *sinensis* birds in the population has been increasing. In recent years, populations of both *carbo* and *sinensis* have become established at lakes and gravel pits inland in Britain.

How many cormorants are there?

Cormorant populations across Europe have been increasing for several decades, showing a marked recovery from a low point in the mid 20th century. It is very difficult to determine cormorant numbers in Europe with any accuracy given their wide geographical range and extensive seasonal migrations. Current best estimates (winter numbers) suggest there are around 500,000 birds in Europe. Populations are continuing to increase in many countries and to extend their range. However, there is evidence of leveling off in some northern European colonies where numbers are believed to have reached the capacity that the local environment can support.

The most recent estimates for the UK, suggest there are approximately 9,000 breeding pairs, of which about 1,600 pairs nest inland. It is more difficult to assess wintering numbers, when most conflicts with fisheries tend to occur, due to the widespread distribution of the birds at this time. The most recent figures suggest about 30,000 cormorants winter in Britain, of which perhaps 10,000 winter inland. Recent studies suggest that there is sufficient food and habitat for numbers of inland breeding birds to continue to rise in England and Wales.

Why have cormorants increased inland?

Although cormorants are often perceived as seabirds, they are also birds of freshwater that breed and winter at freshwater sites throughout Europe. Birds of the *sinensis* race (see box), which are used to nesting in trees, visit the UK during the winter and a small but increasing number remain here to breed. Cormorants have always been found inland in Britain, but numbers have been controlled since medieval times. In addition, birds of the coastal race *carbo* increasingly nest inland. It is not entirely clear why this has happened, although it is widely recognised that the creation of many new wetland habitats since the 1960s, and the stocking of fish in these waters, has provided attractive feeding sites for these opportunistic birds. Other factors are believed to include the advent of legal protection and a reduction in pollutant levels.

Are cormorants protected?

Cormorants, like all wild birds, are protected under the Wildlife and Countryside Act 1981. Birds cannot be killed, their eggs or nests (when in use or being built) taken or destroyed, except under licence. This Act implements the provisions of the 1979 EU Birds Directive. Similar legislation protects birds throughout Europe. In England and Wales, anyone found guilty of an offence can be fined up to £5,000, given six months imprisonment, or both.

If cormorants are causing serious damage to a fishery, or are likely to do so, and where non-lethal anti-predation measures have either been tried and found to be ineffective at the site, or are impractical, the landowner or manager of a site can apply for a licence to shoot a limited number of the birds. See advisory leaflet 'Fisheries and the presence of cormorants, goosanders and herons' (TAN14) available from the Department for Environment, Food and Rural Affairs (Defra). Full details of where to obtain this Advice Note and apply for a licence are shown on page 4.

What do cormorants eat?

Cormorants consume a wide variety of fish species, usually reflecting their availability at inland fisheries. Cormorants commonly take fish between 5 and 15 cm (2 to 6 inches) in length, but have been recorded eating fish of over 40 cm (16 inches) and eels of over 60 cm (24 inches) long. Birds feed individually, or in flocks, sometimes working together to increase their efficiency. Cormorants eat only what they need to survive or to feed their chicks when they are in the nest. The birds are particularly attracted to high prey densities and can often meet their daily food requirements in a short time, and will then 'loaf' for the remainder of the day. At sites where prey densities are lower, foraging may continue for longer.

How much fish do cormorants eat?

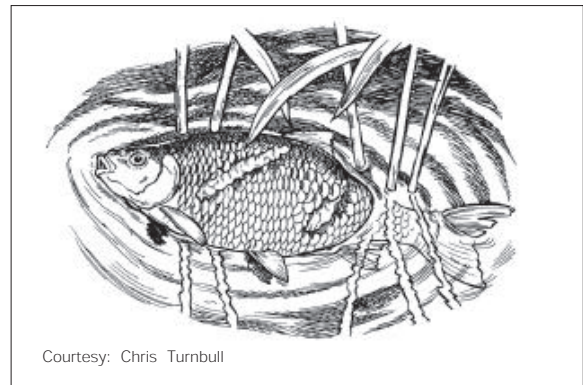
On average, an adult cormorant requires around 400g - 500g (about one pound) of food each day although the weight of fish eaten on any particular day can vary considerably.

Do cormorants damage fish?

Cormorants can damage and scar fish, especially larger ones which they fail to catch properly. This can increase the risk of disease, mortality and stress.

Are cormorants responsible for declines in fish catches?

Fish catches are affected by many factors and the mere presence of cormorants at a site where



catches have declined does not mean that the birds are responsible. The underlying size of a fish population is known to have a major influence on catches. It is generally accepted that catches of fish will be better where there are larger stocks of fish in a waterbody. This is why fishery managers commonly resort to stocking to increase fish densities in their waters.

The extent to which cormorants might affect a fish stock, and thus catches, will depend on the duration and level of the predation and the numbers, sizes and species of fish removed. Where predation is at a low level, on very young small fish, or on species not targeted by anglers, losses to cormorants may have a relatively small effect on catches in the short term and losses may, in part at least, be compensated by growth and reproduction. However, where the fish removed by cormorants are of an exploitable size and species, the losses are more likely to affect catches directly. It is also apparent that the presence of cormorants can influence the behaviour of fish and this may make them more difficult to catch.

Are cormorants responsible for impacts on fisheries?

Investigations have demonstrated that cormorants can cause serious economic and ecological damage to a fishery, but that this does not apply at all sites. The level at which predation becomes serious differs at every site and impact therefore needs to be assessed on a case-by-case basis. Studies at a range of stillwater and riverine sites in England and Wales have indicated wide variation in the losses to cormorants between sites and over time. Losses at stillwater fisheries show greater variability than on rivers. It should also be noted that anglers' perceptions of cormorant damage at a fishery could result in a fall in income from permit sales and in the value of the fishery (regardless of whether a serious problem actually exists).

Do cormorants affect fish conservation?

There are widespread concerns about continuing declines in populations of eels and salmon, and other species of fish, such as allis shad, twaite shad, vendace and pollan have been identified as threatened in the government's UK Biodiversity Action Plan. For all of these species, habitat or wider environmental factors are likely to be the main cause of decline, and predation by birds is only likely to become a factor for local populations where fish numbers fall to a very low level. Such conflicts are likely to be uncommon, but can arise, as for example in the recent case of predation on an endangered whitefish species in Haweswater in the English Lake District.

Can the impact of cormorant predation be reduced?

Yes. A range of measures can be employed to reduce the impact of predation by cormorants, but their effect will vary from one site to another. Disturbance by people is consistently effective, and visual or noise deterrents can work on stillwaters. Deterrents are best utilised in combination and when moved from site to site to minimise problems of birds habituating to a particular deterrent. These methods are less likely to be useful or effective on rivers. At any given site there may be potential to improve the fisheries habitat, offering fish greater chances of escape from attack, or to change fish stocking policies to make the food source less attractive to cormorants. Artificial fish refuges have also been shown to be effective in reducing fish losses. Good quality habitat will assist fish recruitment and survival, and help to reduce the impact of fish losses. Practical advice in relation to cormorant predation is provided in the FACT booklet 'Protecting your fishery from cormorants' and in the Defra leaflet (TAN 50) 'Protecting fisheries from cormorants' - the use of fish refuges'. Full details of where to obtain these documents are provided on page 4.

Why not just shoot cormorants?

There is no legal provision to enable a general cull of cormorants; licensed shooting is thus restricted to local sites where a serious problem has been identified. At the local level, shooting cormorants can work, but its effectiveness varies. At some sites, shooting, to kill or to scare, can be effective, but at others less so. Research has shown that numbers tend to be reduced in the short term but recover over a period of a few weeks, as birds return to the site or new birds move in. As with

most deterrents, therefore, shooting has to be repeated in order for it to be effective over the longer term. Removing or scaring cormorants without reducing the attractiveness of a water body to the birds is likely to be an ongoing task rather than a 'quick fix'.

Will scaring cormorants move them to other sites?

Yes, the aim of scaring cormorants using visual or noise deterrents, perhaps supported by shooting, is to move the birds away from a site where they are causing damage. This will only work if there are alternative feeding areas nearby. Sending birds to these areas may not necessarily be a problem, but it follows that scaring techniques may be required at all the sites where cormorants feed regularly and the protection of fish stocks is considered important.

What about the sites where deterrents and shooting cannot be used?

Inevitably, at certain sites, some deterrents will not be practicable and shooting is not possible. Examples of this are lakes in town parks or navigable canals or rivers in an urban area. In these cases, it has to be accepted that solutions will be limited to particular non-lethal deterrents.



THE WAY FORWARD...

Experience throughout the world has shown that a local approach offers the best chance of success. The Fisheries and Angling Conservation Trust has produced guidance on ways to deter fish-eating birds and promotes the use of the licensing system for fisheries with a demonstrable problem.

Fisheries, angling and conservation organisations are committed to championing the conservation of freshwater habitats and the fish, birds and other wildlife, which depend upon them. We will work with Government and organisations across Europe to manage conflicts where they occur and try to find sustainable solutions that are acceptable to all.

For further information....

In [England](#), further information on scaring techniques and licences can be obtained by contacting the Department for Environment, Food and Rural Affairs (Defra), National Wildlife Management Team, Administration Unit, Burghill Road, Westbury-on-Trym, Bristol, BS10 6NJ.
Tel: 0845 601 4523 (local rate).

In [Scotland](#), contact the Scottish Executive Environment and Rural Affairs Department (SEERAD) Pentland House, 47 Robb's Loan, Edinburgh EH14 1TY.
Tel: 0131 556 8400.

In [Northern Ireland](#), contact the Environment and Heritage Service, Commonwealth House, 33 Castle Street, Belfast, BT1 1GH.
Tel: 028 9054 6558.

In [Wales](#), contact Food and Farming Development Division 1, Welsh Assembly Government, Agriculture Department, Cathays Park, Cardiff CF10 3NQ.
Tel: 02920 825317.

Useful texts on fish-eating birds

- [Protecting your fishery from cormorants](#). FACT Joint Wildlife Management Group.
- [Goosanders and Mergansers - The Facts](#). FACT Joint Wildlife Management Group.
- [Fisheries and the presence of cormorants, goosanders and herons](#). Defra Rural Development Service Technical Advice Note 14. Tel: 0845 601 4523 (local rate).
- [Protecting fisheries from cormorants in the use of fish refuges](#). Defra Rural Development Service Technical Advice Note 50. Tel: 0845 601 4523 (local rate).

This information leaflet is a product of the FACT Joint Wildlife Management Group and supported by:

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National Federation of Sea Anglers
Professional Coarse Fisheries Association
Royal Society for the Protection of Birds
Salmon & Trout Association
Specialist Anglers Alliance

For general advice on angling and cormorants please contact the Fisheries and Angling Conservation Trust on 020 7283 5838