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 has threatened fish stocks and impacts upon the viability of fisheries. Conservation groups are worried that any widespread effort to control cormorant numbers could threaten the bird's conservation status.

This leaflet has been produced by a partnership of fisheries and conservation organisations to try to address these concerns and to answer some of the questions most often asked about cormorants.

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 estimated that there are about 200,000-250,000 pairs in Europe. Around 7,500 pairs nest in the UK, of which 1,500 pairs nest inland (though only four sites hold more than 100 pairs). About 25,000 cormorants winter in the UK, of which 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. The levelling off in numbers at some northern European colonies is thought to reflect their reaching the capacity that the local environment can support.

Why have cormorants increased inland?

Although cormorants are often perceived as sea-birds, they are also birds of freshwater that breed and winter at sites throughout Europe. Birds of the *sinensis* race (see box), which is 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* (see box) increasingly nest inland. It is not known why this has happened but possible reasons include the creation of many reservoirs and gravel quarries since the 1960s and the stocking of fish in these waters; over-fishing of prey species around the coast; 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 EEC 1979 Birds Directive. Similar legislation protects birds throughout Europe. In England and Wales, anyone found guilty of an offence can be fined up to £5000, given six months imprisonment, or both.

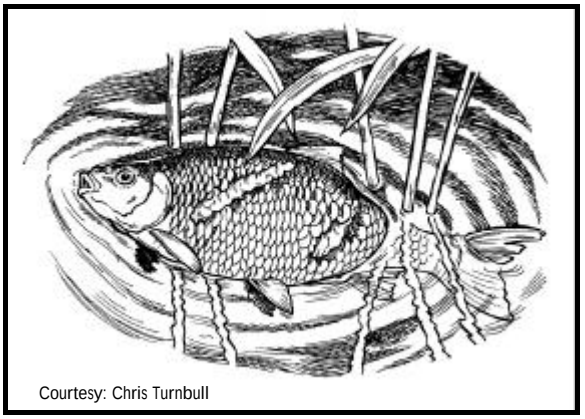
If cormorants are causing serious damage to a fishery or to wildlife conservation interests, the landowner or manager of a site can apply for a licence to shoot a limited number of the birds as an aid to scaring. See advisory leaflet "Fisheries and the presence of cormorants, goosanders and herons" (WM14) available from Department for Environment, Food and Rural Affairs (DEFRA). Full details of where to apply for this leaflet or a licence are shown on page 4.

What species of cormorant?

Two species of cormorant occur in north west Europe – the Great Cormorant and the Shag. However, there are two subspecies of the Great Cormorant in Europe. One of these, *Phalacrocorax carbo carbo,* is primarily a coastal bird, nesting on cliffs and offshore islands, but sometimes moving inland in winter. The other, *Phalacrocorax carbo sinensis,* favours inland breeding sites, usually in trees. They are difficult to tell apart in the field – the *sinensis* subspecies 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. In recent years, populations of both *carbo* and *sinensis* have become established at lakes and gravel pits inland in Britain.

What do cormorants eat?

Cormorants consume a wide variety of fish species, usually reflecting their availability at inland fisheries. In England and Wales, roach and perch are the most numerous prey items while rainbow and brown trout are consumed at put-and-take trout 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. In some stocked waters, they can often do that in a short time, and will then 'loaf' for the remainder of the day.



Courtesy: Chris Turnbull

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, stress and behavioural changes (fish become more difficult to catch). Anglers' perceptions of cormorant damage at a fishery can result in a fall in income from permit sales and in the value of the fishery (regardless of whether a 'serious problem' actually exists).

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 a particular day can vary considerably. While it may seem simple enough to calculate the weight of fish taken by cormorants at a site or across the country, such figures are of limited value in isolation. Losses need to be viewed in relation to the available fish stock, but these calculations are complex and need to take into account natural reproduction. Studies on a range of stillwater and riverine sites in England and Wales indicate wide variation in the losses to cormorants between sites and across time. Losses at stillwater fisheries show greater variability than on rivers.

Are cormorants responsible for declines in fish catches?

Cormorants can cause serious economic and ecological damage to a fishery - but are more likely to respond to fish numbers than to limit them. However, the mere presence of cormorants at a site where catches have declined does not prove that the birds are responsible. Serious damage is most likely to occur at stillwaters with high densities of fish, but it is difficult to derive quantifiable information which would identify when economic damage starts at any fishery.

A recent investigation highlights some of the difficulties associated with assessing the impact of cormorants on a fishery. At Holme Pierrepont, Nottingham, low catches during the 1994 World Coarse Angling Championships were blamed on cormorant predation, but catches had been declining since before the birds arrived a few years previously. After 1994 catches rose again despite increased cormorant activity. Fishery scientists believe that several years of poor recruitment of juvenile fish contributed to the poor catches and the increased catches followed several years of good recruitment.

Do 'managed fisheries' boost cormorant numbers?

In some areas, stocked fisheries can provide an easy source of food for the birds. There is little hard evidence, but it is possible that this abundance of food will boost survival of cormorants and hence their number. It is recognised that most fisheries need some form of management, and conservation organisations believe that sensitive maintenance and restoration of wetland habitats by owners, occupiers and angling clubs can be an asset to freshwater biodiversity.

Do cormorants affect fish conservation?

Fisheries and angling interests and conservation organisations are concerned about declines in populations of eels and salmon, and about other species of fish, including allis shad, twaite shad, vendace and pollan, 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 or threat to their well-being, but if fish numbers fall to a very low level, predation by birds could become a factor in the survival of local populations.

How many cormorants will it take to cause a serious decline in fish stocks?

Cormorants may cause problems at specific fisheries, but the level at which predation becomes 'serious' differs at every site. This makes it impossible to find a simple means to determine whether cormorants are causing serious damage.

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 are most likely to work on stillwaters. 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. Ultimately, good quality habitat will assist fish recruitment and survival. Fisheries and conservation interests are currently working with DEFRA to produce practical management advice for fishery managers. Some advice is contained in the DEFRA leaflet WM14.

Why not just shoot cormorants?

Shooting cormorants as an aid to scaring can work, but its effectiveness varies. At some sites, shooting, to kill or to scare, appears to make little difference to the number of cormorants present at the site. At others, birds leave for a short while, but return after several weeks.

Removing cormorants without reducing the attractiveness of a water body to the birds is a never-ending task. Shooting a few cormorants will create a 'vacuum' for other birds to move into, so killing cormorants on a large scale, even if it were possible, does not necessarily reduce predation. For example, about 6,000 cormorants winter in Bavaria. During the winter 1996/97, over 6,000 birds were shot, but the average winter population was not reduced; culling the birds simply created a space that others moved into from surrounding areas.

The cormorants in the UK are part of the European population. Any large-scale cull of cormorants here may simply create a 'gap' for birds from elsewhere in Europe. To make any difference to the cormorant population, it is estimated that 30,000-60,000 cormorants would have to be killed every year throughout Europe. This is not only impractical; it simply would not be acceptable to the general public.

Will scaring cormorants move them to other sites?

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 if scaring techniques are employed at *all* the sites where the protection of fish stocks is important, the cormorants will be deterred from sensitive sites.

Fisheries Action Plans (FAPs)

Fisheries Action Plans (FAPs) provide new fora for fisheries development across England and Wales. Their objective is to maximise sustainable development of fisheries and associated ecological, social, economic and recreational benefits. Developed by the Environment Agency in partnership with local fishing interests, and with input from conservation bodies, FAPs will result in realistic, deliverable plans for local fisheries.

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

Inevitably, at some 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. **Fisheries Actions Plans** will be the key mechanism for resolving cormorant impacts in England and Wales.

In addition, fishery and conservation interests from the UK are also collaborating on an EU-funded project aimed at reducing the conflict between cormorants and fisheries on a pan-European scale (**REDCAFE**).

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 to the problem 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), 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.

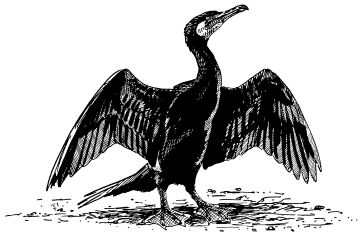
Tel: 0131 556 8400

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, National Assembly for Wales Agriculture Department, Cathays Park, Cardiff CF10 3NQ.

Tel: 02920 825317.



Courtesy: RSPB

This information leaflet is a product of the Moran Committee and sponsored by:

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For general advice on angling and cormorants please contact the National Angling Alliance on 020 7283 5838