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Wildfowl

This chapter refers to the types of wildfowl shooting a Gun might encounter on a driven or inland rough shooting day and related habitat management. For guidance on coastal wildfowling and more detail on wildfowl shooting in general, see *The BASC Handbook of Shooting*.

Mallard

The mallard is the most familiar duck in the UK. It is easily recognisable and very adaptable, found in rivers, ponds, streams, wetlands and reservoirs across the country. Despite being so widespread and thought of as common, the population of mallard is actually falling in Britain recently and it is now amber listed because of these declines.

How many wild mallard are there in the UK?

It is difficult to know accurately, but estimates suggest there are around 60,000 to 145,000 breeding pairs in spring, who are joined in the winter by many more from Iceland and northern Europe – taking the overwintering population of wild mallard to around 700,000 individuals³⁷.

Can mallard be released?

Yes. Mallard can be reared using the same techniques as pheasants and partridge, and released. Mallard make up the vast majority of the ducks shot inland in the UK.

Is it done in the same way?

The process is very similar. Ducklings are raised in game farms – tending to be ones that specialise in duck – and are released at around 8-10 weeks to a pond on the shoot. This may be fenced to keep predators out, but if predation control is performed in the area it may not be needed. The main predators for mallard are fox and mink.



Can releasing harm the local ecology?

As with pheasant release, it is important to recognise the possibility for environmental harm if mallard release is performed at too high a level in too small an area. Although the scientific evidence base is not as detailed or robust in this situation, experience highlights that the release of an inappropriately high number of birds can have a negative effect on the release pond itself and the wildlife that shares it.

Do the reared duck fly away?

Usually not. They tend to stay on the same pond, or move between nearby ponds if there are several in the vicinity, but will not travel very far. Wild mallard may join the released birds so numbers may grow through the year.

How many mallard are shot each year?

We don't know the total number with certainty. It is not compulsory to record or report the number of birds (or other game) you shoot, so we can only monitor the number shot by those who voluntarily send their information to the GWCT's National Gamebag Census (NGC). For more information about the NGC, what it can tell us and how it works, see chapter 10. Using NGC data combined with other sources, we have estimated that the total UK bag for mallard was close to a million in the 2012/13 season²⁴.

Figure 8: Mallard index from NGC bags



How many of these were released compared to wild?

We also don't know the proportions, as it is not possible to tell a wild from a released bird unless they are tagged. We do know that from those who send us their bag returns, approximately five times as many mallard were released in 2011, compared to 1961. The number of mallard shot by participants of the NGC is approximately three times what it was in 1961.

What are flight ponds?

Flight ponds provide a feeding or roosting area for wildfowl. To feed the duck the keeper scatters barley or grain by hand on the water or at the edge of the pond to supplement natural food sources.



The creation of new flight ponds benefits a wide range of species. © GWCT



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Mallard facts

Mallard are around 50-65 cm long, with the male being larger on average. Wing span is 81-98 cm. Very adaptable to an extremely wide range of habitats, breeding across the UK wherever there is a suitable wetland habitat – rivers, ponds or streams, standing or flowing fresh water, brackish estuaries or lagoons. Mallard generally prefer shallow water though, foraging only to a depth of around 1 metre and not choosing areas of deep water (more than a few metres) even for resting³².

Mallard are mostly migratory. The UK hosts a breeding population of mallard, but also provides winter habitat for many that breed elsewhere. For example, many birds that breed in Iceland winter in Britain and Ireland.

A wide range of foods are eaten of both plant and animal origin. Mallard naturally feed on seeds, berries, plants insects and shellfish, but mallard are opportunistic and omnivorous. Food is usually obtained from or near the surface, although with occasional diving and the young do dive for food at 4-7 weeks. The mallard's diversity in feeding behaviour allows them to use a wide range of habitats³².

Nest sites are variable, being mainly in cover – thick or thin, but occasionally in the open. Mallard readily use nest boxes or platforms, and nests can be fairly close together. The nests themselves are a shallow depression, with a low rim of grass, leaves or small twigs and lined with down.

Clutches of between 4 and 18 are possible, with an average of 13 in the UK. Replacement clutches tend to be slightly smaller, averaging 10. One egg is usually laid per day, which are then incubated for 27-28 days by the female, with the male sometimes nearby in the early stages³².

The eggs are covered with down when the female leaves the nest. The young are mobile as soon as they hatch, and leave the nest on average 14-21 hours after hatching. They feed themselves straight away, but are cared for and brooded at night by the female, who protects them against predators. Ducklings fledge at 50-60 days, when they become independent³².

Mallard rise straight off the water, leaping into the air and fly with shallow wing beats. Only the female makes the familiar deep quacking, while the male has a variety of calls. They live predominantly in flocks of various sizes which can consist of pairs or unpaired birds. Breeding in spring.

Did you know?

You can make nesting tubes for mallard Mallard will nest in tubes suspended on a pole on the water. These devices which are easy to make protect the brood from predation until they hatch.



Other duck species

In addition to mallard, eight other duck species are shot in the UK. Most are coastal and would be less likely to be found on an inland shoot: teal, wigeon, pintail, gadwall, shoveler, tufted, pochard and goldeneye. These are divided into two groups which align with their feeding strategies:

Dabbling ducks feed from the surface of water bodies, dipping their beaks to pick up food, or upending in shallow water. There are almost 40 separate dabbling duck species worldwide, including the quarry species mallard, pintail, gadwall, shoveler and teal. Wigeon are also dabbling ducks, but tend to feed by grazing for plants.



Teal are a dabbling duck, dipping their beaks into shallow water to feed. © *Laurie Campbell*

Diving ducks as the name suggests, diving ducks dive under freshwater to find food. They also tend to have a slightly faster wingbeat than most dabblers. From the quarry species, tufted, pochard and golden-eye are diving ducks.

Geese

Native wild geese species on the quarry list comprise pink-footed, greylag, and white-fronted. Non-natives include Canada and Egyptian geese, both of which can currently be shot under certain general licences (see table 1).

What are the population trends for wildfowl quarry species?

Of the nine duck species on the quarry list, the breeding or wintering populations of eight have declined in recent decades. Two of the native goose species are suffering population declines. The area in which many of these species breed (the range) has also reduced. The reasons for this are not well established, and may be due to loss of wetland habitats, short-stopping of migrating wintering populations (see below) or other environmental changes.

There is no evidence that shooting is driving declines, indeed habitat management for wildfowl shooting may support the population as is seen for grey partridge. Studies examining this are lacking and it is important to adhere to responsible shooting practices to protect the populations of these winter visitors.

What is short-stopping?

Wildfowl are not wedded to using the same wintering grounds year on year, and simply follow their migratory routes until they reach a suitable area. Short-stopping is when ducks and geese stop earlier on their migration path, rather than travelling all the way to the destination, for example in the UK, that may have been used previously. It is though that short-stopping is occurring increasingly as a result of climate change, at least for some wildfowl species¹⁴⁰.

Basic wildfowl management

There has been a dramatic loss of wetland habitat over the past century, firstly because of land drainage, and more recently because of increased grassland management.

Partly because of their importance for breeding and nonbreeding wildfowl, three types of lowland wet grasslands that have declined substantially are included in the UK Biodiversity Action Plan (BAP) under three priority habitat types:

- 1. Coastal and Floodplain Grazing Marsh (UK Biodiversity Steering Group 1995)
- 2. Lowland Meadows (UK Biodiversity Steering Group 1995)
- 3. Purple Moor Grass and Rush Pastures (UK Biodiversity Steering Group 1998).

For example, there was a 40% reduction in coastal and floodplain grazing marsh between 1930 and the present day¹⁴¹. This has had a big impact on many species, but the reestablishment of such areas, often motivated by the prospect of improved shooting, can be hugely beneficial.

What habitat measures are performed for wildfowl?

There are three main techniques:

- 1. Reversion of pasture to bog or wetland
- 2. Pond creation and management
- 3. Reversion of arable land along the coast to wet grassland

How are these reversions achieved?

Where wet land has been converted to pasture or arable this will usually have been achieved with the addition of drainage. Blocking up the drains will allow the land to revert, becoming wetter and even flooding, which provides habitat for wildfowl.

What sort of pond management is done?

Sometimes ponds are created with a view to attracting or releasing ducks. When creating such a pond, the siting of it is important – often this is chosen by studying the existing behaviour of wildfowl in the local area. Being near a flight line is helpful.

Other important aspects are a range of depths, but mainly shallows; a rich variety of water plants, from marginal reeds and floating leaved forms to deeper submerged species; a number of islands or rafts; gently sloping shores, some of them open and mown, gravelled or grazed, and the whole surrounded by good tall meadow nesting cover and sheltered by a tree belt or hedge and stockproof fence.

Some plants will directly provide food through their leaves or seeds, some support other insects that are a food source, others provide shelter and may protect the banks from erosion. It is important to clear sufficient trees around the flight pond to let plenty of light in¹⁴². Increasing habitat availability and biodiversity with the creation of new ponds, or management for wildfowl of existing ponds, can be important for a wide range of other species.

Which predators are important?

Predation control may be necessary around wildfowl wetlands. As always, local variation will affect this, but in general foxes, crows and American mink are usually the biggest problem for predation on wildfowl. In some areas, the larger gulls can also predate ducklings. Predation control on wetlands can benefit a range of wading birds which like wildfowl are particularly vulnerable as ground nesters.

Old gravel pits

The GWCT has researched how good waterfowl habitat can successfully be created at the site of old gravel pits, and provide a new lease of life for such areas with many advantages for a range of other wildlife. The insight gained was relevant to wider wildfowl management. For example, early indications of poor productivity in mallard breeding around gravel pits led to detailed diet studies, which showed that ducklings need abundant invertebrates if they are to survive and grow. It soon became clear that food competition with fish was a key factor in this, so we now know that keeping ponds fish free makes a big difference in wildfowl conservation terms.

How was the gravel pit conversion achieved?

When gravel extraction is complete, groundwater will begin to fill the lakes naturally but this is not enough to provide good habitat. Ideally before the heavy machinery from quarrying leaves the site, pond landscaping should take place to optimise the layout of the lakebed and banks. Forming islands, sloping banks, shallow areas and reed beds at the start will lay the best foundations for suitable wildfowl and wildlife habitat¹⁴³. The ability to control water flow via sluices to neighbouring water courses allows the raising or lowering of water levels to: flood meadows in winter, isolate nesting islands in spring/summer, fill scrapes and pools, expose wet mud feeding sites and other beneficial management activities¹⁴³. In contrast, when left unmanaged, wet gravel pits can develop dense willow scrub at the edge, leading to low light penetration, low diversity and leaf litter clogging up the water.



There was a 40% reduction in coastal and floodplain grazing marsh between 1930 and 2018.

Ask the shoot

- 1. When do you commence shooting woodcock?
- 2. When do migratory woodcock arrive in the area?
- 3. What management are you doing for woodcock?
- 4. What's your local resident breeding population?
- 5. Have you created any wetlands on the shoot?
- 6. Do you release reared duck?
- 7. When are they released and when do you commence shooting them?
- 8. How do you ensure no there are no adverse impacts on the wild duck population or pond habitat?
- 9. Do you have sufficient alternative ponds for them to fly to once they have been driven?